Evaluation of community engagement in Nam Theun 2 hydropower project in Lao People's Democratic Republic

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By Phonesavath Khamvilay

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Abstract

The Nam Theun 2 (NT2) hydropower project has been considered as a means to reducing poverty in Lao People's Democratic Republic (Lao PDR) through supporting social and economic development. With many more proposed hydropower projects, there are upcoming challenges for the Lao government in terms of managing sustainable hydropower throughout the nation.

This research makes use of a qualitative single case study approach to evaluate the effectiveness of the Multi-Stakeholder Process (MSP) applied in a case study of NT2. This research seeks to find effective ways of engaging communities for future hydropower developments in Lao PDR. Primary data were gained through semi-structured interviews with ten key institutions and four focus group discussions with affected communities. Secondary data were also collected by extensively reviewing available documents.

This study found that the development of the NT2 project enabled communities to be involved and communicate their opinions and concerns during the different stages of project development. The NT2 project also involved a wide range of stakeholders to oversee the implementation of the project.

Weaknesses were identified in the MSP practice of the NT2 project. Ongoing monitoring needs to cover the project life span, and stakeholders, such as the NGOs, should be involved in these activities.

Clearer lines of communication need to be established both ways to increase transparency and reduce misunderstandings. The institutional memory of each stakeholder group also needs to be improved so that the project activities can be smoothly implemented from time to time.

Host villagers share the community with the relocated people, therefore they need to be included in the project development and management process. To ensure effective engagement of the communities, key stakeholder must regularly review the reports provided by the monitoring agencies so that the concerns of each stakeholder group are addressed.

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I am so sorry that my beloved father, Phongsavanh Khamvilay (1960-2016) could not be able to see my academic completion; however, I am very proud of being your son and I hope you can see my achievement from heaven. Love you father.

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List of Abbreviations

ADB	Asian Development Bank
DEB	Department of Energy Business
DESIA	Department of Environmental and Social Impact Assessment
DIP	Department of Investment Promotion
EIA	Environmental Impact Assessment
EMU	Environmental Management Unit
IAG	International Advisory Group
IPD	Investment Promotion Department
IUCN	International Union for Conservation of Nature
MAF	Ministry of Agriculture and Forestry
MEM	Ministry of Energy and Mines
MoNRE	Ministry of Natural Resources and Environment
MPI	Ministry of Planning and Investment
MSP	Multi-Stakeholder Process
NB-DWG	Nongbok District Working Group
NK-DWG	Nakai District Working Group
NGOs	Non-Government Organisations
NTPC	Nam Theun 2 Power Company
PAP	Project Affected Person
PoE	Panel of Experts
RMU	Resettlement Management Unit
WB	World Bank
WCD	World Commission on Dams
WCS	Wildlife Conservation Society
WWF	World Wide Fund for Nature
XBF	Xe Bang Fai

Chapter 1: Introduction

1.1. Background

There are different views in relation to any large-scale hydropower construction project. On the one hand, the hydropower sector is viewed by politicians as a means to make a significant contribution to the economic growth of a country (McCully, 1996). On the other hand, it causes a number of effects on the environment and local people's livelihood (World Commission on Dams [WCD], 2000). Fujikura and Nakayama (2009) note that in 1994 there were 340 Non-Government Organisations (NGOs) from 44 countries around the world that shared disapproval of mega dam construction projects funded by the World Bank (WB) due to the severe effects on the natural environment and local communities. In response to this phenomenon, the Operational Evaluation Department of the WB carried out a desk analysis of the 50 dams funded by the WB between 1948 and 1996 (Dubash, Dupar, Kothari, & Lissu, 2001). The result from the desk study indicated that 37 out of 50 funded-dam projects were acceptable under the WB's current guidelines, whereby large dam development can be completed in a way which closely protects the environment and improves the affected people's livelihood (WB as cited in Fujikura & Nakayama, 2009). Fujikura and Nakayama (2009) reported that the findings were not positively accepted by the NGOs and the affected people. Therefore, in 1997, the WB, in cooperation with the International Union for Conservation of Nature, organised and facilitated the international workshop (known as the Gland Meeting) in Switzerland that involved a wide range of stakeholders, including government agencies, investors, dam construction companies, NGOs, and academia to review the Operational Evaluation Department's findings (Scudder, 2005).

As a consequence, the WCD, an independent international body, was established in 1998 (Fujikura & Nakayama, 2009). The WCD consisted of twelve commissioners, representing government sectors, dam building industry, academia, affected people, and civil society (Bird, 2002). The WCD's aims were to carry out the evaluation of global large dam development and examine the possible sustainable ways of using the water resource for power development (Moore, Dore, & Gyawali, 2010). After two and half years of reviewing large dam development projects throughout the world, the WCD published its final report in 2000, titled "A new framework for decision-making" (Fujikura & Nakayama, 2009). The report provided strategic priority recommendations regarding the process associated with large dam development and

that recommendations were expected to be at an internationally recognised standard (Fujikura & Nakayama, 2009; Hemmati, 2002a).

These include:

i) gaining public acceptance

ii) comprehensive options assessment

iii) addressing existing dams

iv) sustaining rivers and livelihoods

v) recognising entitlements and sharing benefits

vi) ensuring compliance, and

vii) sharing rivers for peace, development, and security (WCD, 2000)

1.2. The world context of large dam development and its effects

A large dam is defined as being greater than 15 m in height (WCD, 2000). Between 1950 and 1986, there were 36,226 large dams constructed globally (McCully, 1996). The number of large dams had increased to 45,000 by the year 2000 (WCD, 2000) and to greater than 50,000 by 2006 (Berga et al., 2006). Large dams are built to satisfy various purposes including facilitating irrigation, supplying domestic water and generating electricity (McCully, 1996; WCD, 2000). There are cases where the final product has failed to meet the design brief, either through excessive effects on the environment, reduced power production, or the extent of the population affected. Common key failures of dam construction projects include poor environmental studies, lack of public consultation in the decision-making process, and ineffective implementation of environmental and social management plans.

With regard to the impact on the affected people who required relocating due to large dam development, the WB published its first resettlement policy in 1980 (McCully, 1996); however, McCully (1996) claimed that although many hydropower projects around the world implemented the WB's resettlement policy, they still failed to improve affected people's livelihoods. For example the WB supported the Pak Mun dam project in Thailand, built in 1991. This project was claimed as being a multipurpose project which aimed to generate benefits through power generation, fisheries production, irrigation, and tourism (Amornsakchai et al., 2000); however, there were several critical issues that were not taken into account during the project environmental study and project design (McCully, 1996). Scudder (2005) pointed

out that the affected people were not consulted in the planning and the decision-making process and the impact on local fisheries, and the compensation for loss of river bank gardens was not adequately identified. As a result, severe adverse effects occurred to people's livelihood when the project began its construction phase due to declining fish production and an inadequate compensation package (Scudder, 2005). This led to a strong negative view and opposition to the project from the affected villagers and NGOs that were involved (Amornsakchai et al., 2000). In response to the WCD report in 2000 both the WB and the Asian Development Bank (ADB) also developed their own policies in relation to guiding large dam development project (Mirumachi & Torriti, 2012), including the policies on involuntary resettlement and indigenous peoples (Nam Then 2 Power Company [NTPC], 2005b).

The development of hydropower dam can have an even greater impact on the environment and/or people when the policies developed by multilateral organisations like the WB or the ADB are not implemented. For instance, the Son La hydropower project was approved for the construction in 2001 in Vietnam, and began its operation in 2015 (Dao, 2010). The Son La project had been declined investment by international financiers, including the WB, because of the massive effects in terms of relocation that were expected to result from this project. This was because more than 100,000 people would require relocation to make way for the mega project. This represented the largest number of relocated people in the Vietnam's history (Dao, 2010). Eventually, the project was fully funded and operated by the government of Vietnam (Dao, 2010). It was not until the Son La project was underway that the national policy on resettlement was improved, but the resettlement programme of this project did not address any recommendations of the WCD (Dao, 2010). The Son La case illustrates a top-down approach where the affected people were not involved in the decision-making process (Dao, 2010). There were a number of critical issues reflecting the effects on the resettled people due to ineffective planning and implementation of the resettlement plan. For instance, a lack of domestic water supply in many resettlement sites, and inadequate land for agriculture. Some of the houses were not fully finished its construction, but the resettled people had to move in order to meet a shortened relocation plan (Dao, 2010).

Similarly, a lack of adequate communication and unclear compensation policies during the development of the Tapovan-Vishnugad hydropower project in India led to a series of demonstrations (Diduck, Sinclair, Pratap, & Hostetler, 2007). The Tapovan-Vishnugad project also did not sufficiently provide opportunities for those who would be affected to influence the decision-making process. The reason for this was because the affected communities were

informed late about the project (Diduck et al., 2007). In addition, a number of consultation workshops and information dissemination events were arranged by the government and the hydropower developer, however, most of the affected people felt the information provided was not satisfactory. The information provided was too technical, which prevented those who would be affected from easily understanding the content. Furthermore, the affected people did not receive a clear response from the government and the developer when they raised their concerns on the project. As a result the government and developer for the Tapovan-Vishnugad project were perceived as distrustful organisations (Diduck et al., 2007).

Apart from the WB and ADB, Sinohydro, China's largest dam construction company, is now playing an important role in developing a number of hydropower projects in many countries such as Lao PDR (People's Democratic Republic), Malaysia, Ghana, India, and Cambodia. Sinohydro built the first large-scale hydropower project in Cambodia called the Kamchay dam and it has been fully operated since 2011 (Siciliano, Urban, Kim, & Lonn, 2015). In 2015, Siciliano, Urban, Kim, and Lonn reported that the construction of the Kamchay dam resulted in negative effects for the local people whose livelihoods relied on non-timber forest products, such as bamboo, in the project area. There are a number of key issues related to this hydropower project. First, there was a poor Environmental Impact Assessment (EIA) study. The construction process was well advanced, despite the late approval of the EIA (Urban, Nordensvard, Siciliano, & Li, 2015). Furthermore the effects on the bamboo collectors were not considered in the EIA, which in turn meant the bamboo collectors were not compensated for the loss of their livelihood. Second, the environmental management plan was not implemented in an effective manner. Last, there was a lack of meaningful participation with those who were affected (Siciliano et al., 2015).

From these examples, it is clear that there is a need to have a holistic approach in managing hydropower projects, one which takes into account the interests of many stakeholders (including the government, dam developer, NGOs, and the affected people), so that effects are minimised and the benefits are maximised, and the key issues for each stakeholder are addressed.

1.3. Identifying the case study

Lao PDR is a small landlocked country located in South East Asia and it is a one-party state, governed by the Lao People's Revolutionary Party (Jönsson, 2009). Its neighbouring countries include China, Vietnam, Cambodia, Thailand, and Myanmar to the north, east, south and west respectively (Figure 1-1). Since 1971, the United Nations has classified Lao PDR as a Least Developed Country (United Nations, 2016). According to the eighth Five-year National Socio-Economic Development Plan of the Lao government [1] (Figure 1-2) has set the target to get rid of the country's Least Developed Country status by the year 2020 (Ministry of Planning and Investment [MPI], 2016). In this plan, poverty reduction is one of the main tasks for the government (MPI, 2016). Increasing foreign direct investment through hydropower development projects is considered as one of the means of contributing to achieving the government target (Ministry of Energy and Mines, 2015; Virtanen, 2006). Currently about 90.51 % of the all households are able to access electricity through the national power grid system, and it was anticipated that 95 percent of the households would have access to electricity by 2020 (MPI, 2016). Apart from the national power grid development target, the Lao government has also set the ambition of being the battery for the *Association of South East Asia Nations* (ASEAN) (MPI, 2011). This means Lao PDR is striving for becoming an energy provider nation exporting electricity to the neighbouring ASEAN countries such as Thailand and Vietnam. Phomsoupha (2009) notes that a number of memoranda of understanding were signed between the Lao government and other neighbouring countries whereby the Lao government would supply electricity up to 7,000 MW to Thailand and 3,000-5,000 MW to Vietnam by 2020. There was also an agreement between the Lao government and the government of Cambodia in relation to supplying up to 200 MW of electricity to Cambodia also by 2020 (Phomsoupha, 2009).

[1] The Lao government is the executive branch of the state, approved by, and responsible to, the National Assembly and the President of the State. The Prime Minister acts as the head of the Lao government, and the ministers and deputy ministers to the ministries and ministry-equivalent organisations act as secretariats to the Lao government and are responsible for macro-management, regarding their sectors throughout the country (National Assembly, 2003).

Figure 1-1: Map of Lao PDR.
Source: www.google.co.nz (2016)

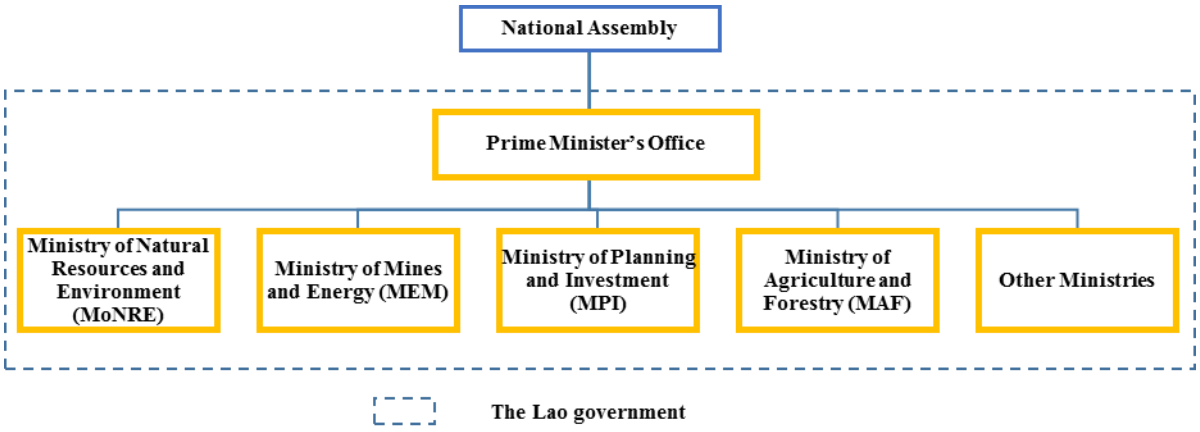


Figure 1-2: Organisation chart of the Lao government

Jusi (2010) notes that Lao PDR has the potential to generate up to 30,000 MW of electricity through hydropower development. By 2015 the Lao government had signed 31 memoranda of understanding and 23 project development agreements with the power companies (Department of Energy Business, 2015).

The WB and the ADB play a very important role in promoting private sector investment especially for hydropower development projects in developing countries in the Mekong region (Fujikura & Nakayama, 2009; Virtanen, 2006), including the Lao PDR (Smits, 2012). The Nam Theun 2 (NT2) hydropower project is the largest hydropower development that is financially supported by these two banks (Laking, 2008) and it is expected that the revenue generated by the NT2 project would be a significant contributor to help the Lao government to achieve its social and economic development goals (Morgan, Loayza, & Kobayashi, 2009). The idea of developing hydropower projects in the Nam Theun (Theun River) by the Lao government and its investors began in the 1970s (NTPC, 2005a; World Wide Fund for Nature, 2005). Early in 1994, the Build-Own-Operate-Transfer [2] principle for developing the NT2 was agreed between the Lao government and the Nam Theun 2 Electricity Consortium. Three years later, in 1997, the Asian economic downturn occurred and this resulted in a drop in demand of electricity from Thailand (Baird & Quastel, 2015; Porter & Shivakumar, 2011; Scudder, Talbot, & Whitmore, 2001; Zeeuw et al., 1998). Interest in the NT2 project restarted again in 1999 and the WB and ADB became actively involved in the project in 2001 (Porter & Shivakumar, 2011) and 2003 respectively (ADB, 2003c; Scudder & Talbot, 2004).

Through the early stages of preparing and developing the NT2, the WB has significantly contributed to establishing the Lao government environmental agencies (Goldman, 2001). In cooperation with the ADB in later stages of the NT2 development, these two banks have been involved in forming a number of Lao regulations and policies requiring the participation, consultation, compensation and resettlement for affected people (Middleton, Garcia, Foran, Molle, & Foran, 2009).

The ADB (2003b) record that the Lao government requested support for the first phase of the technical assistance from the ADB in the project preparation phase. The technical assistance included improving the capacity of the government institution for developing hydropower projects, strengthening the communication capacity with the stakeholders, and facilitating the coordination between the government and the civil society through the internal and external NGOs (ADB, 2003c). Two main steps were prepared for assisting the Lao government. The first included capacity building for the government agencies in implementing and managing

[2] The Build-Own-Operate-Transfer refers to the hydropower development scheme that the Lao government granted the right to the power company to build, own and operate the project within the time period agreed on the Concession Agreement which is a 25 years for the case of NT2. The Ministry of Planning and Investment is act as the representative of Lao government in signing the Concession Agreement for the NT2 with the power company. The project would then be transferred to the Lao government when the Concession Agreement is ended.

the hydropower project. These government bodies include the Ministry of Energy and Mines (previously referred to the Ministry of Industry and Handicrafts), the Ministry of Natural Resources and Environment (previously referred to as the Science Technology and Environment Agency) as well as various local administration authorities at provincial and district levels (ADB, 2003c). Phase II of the Technical Assistance was focused on some critical aspects including incorporating the findings from Phase I into the safeguard documents of the project and continuing to facilitate effective national, regional and international consultation processes with all relevant stakeholders (ADB, 2004). The Technical Assistance also assisted with information dissemination on the project in order to enable effective access of project information by stakeholders (ADB, 2004).

The NT2 was shifted from the Nam Theun 2 Electricity Consortium to Nam Theun 2 Power Company (NTPC) in 2004, with the following shareholders: Electricité de France International (40%), Electricity Generating Public Company Limited (35%), and Lao Holding State Enterprise[3] (25%) (Figure 1-3) (NTPC, 2015e). Gray (2012) notes that the Lao government can receive revenue about USD 30 million per year during the first ten years of the project commercial operation period. This revenue is amounted to 3-5% of the government revenues through tariffs paid by the power company (Laking, 2008). It is expected that the revenue from the NT2 would sharply increase up to USD 110 million per year (from 2020 to 2034) once the debt is paid (Gray, 2012; Morgan et al., 2009).

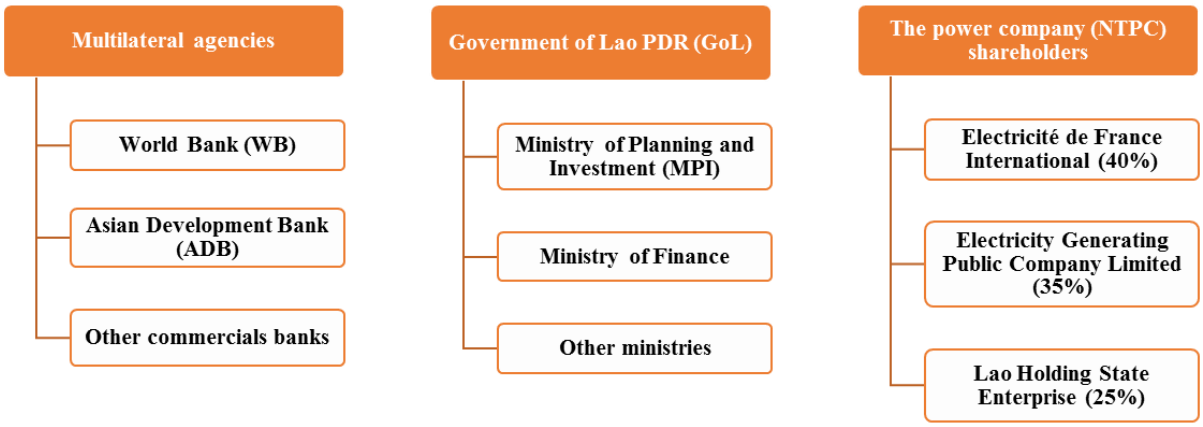


Figure 1-3: Key parties involved in supporting and implementing the NT2 project

[3] Lao Holding State Enterprise is a state-owned company under the supervision of Ministry of Finance which replaced the Electricité du Laos as the Lao government shareholder in the NTPC.

The WB and ADB justified their involvement in supporting the Lao government in the NT2 for three main reasons: the project will enhance domestic electricity demand, revenue from the NT2 will be used to support growth of the national economy and to reduce poverty, and the project will contribute to protecting the valuable diversity of the country like the Nakai Nam Theun National Protected Area (ADB, 2005; Porter & Shivakumar, 2011; Zeeuw, Salim, & Santos-Borja, 2006). Moreover since 1992, the ADB has supported the implementation of the Greater Mekong Sub-region programme in countries like Lao PDR, Cambodia, Myanmar, Vietnam, Thailand, and the Yunnan province of China. This programme has a long-term goal in promoting development through private sector-led economic cooperation programmes in order to link the economy of the countries together (Matthews & Geheb, 2014). The programmes support a wide range of development sectors such as transportation, energy, human resources, development, environment, and investment (International Union for Conservation of Nature, Thailand Environment Institute, International Water Management Institute, & Mekong Programme on Water Environment and Resilience, 2007). The NT2 project is one component of a Mekong Power Grid partially supported through the Greater Mekong Sub-region programme (Matthews & Geheb, 2014).

The WCD is also considered a global Multi-Stakeholder Process (MSP) (Hemmati, 2002b; Moore et al., 2010). Some literature uses the word *process* interchangeably with *platform* or *dialogue*, but the purposes of this thesis, Multi-Stakeholder *Process* (MSP) is used. Dore (2007) notes that the MSP is one form of governance in which representatives from relevant stakeholders aim to find workable strategies and agreements among all participants through the process of learning and understanding one another's perceptions. In this way potential solutions to particular issues can be identified in a collaborative manner. Hemmati (2002a) recognises stakeholders as parties involved or interested in the decision-making process, including the people who make the decision, individuals who can influence the decision and persons who are affected by such decision.

The NT2 became the first large-scale hydropower development project in Lao PDR which applied the extensive MSP (Rosario, 2011). The NT2 MSP involved more than 200 consultation workshops undertaken at international, national, and local levels (provincial, district, and community) during the project planning process (NTPC, 2005a; Scudder et al., 2001). This was required by the safeguard policies of the WB (McPhail & Callieri, 1998). Rosario (2011) documents that the WB issued a set of Operations Manuals for safety of dams, environmental assessment, natural habitats, indigenous peoples, and involuntary resettlement,

and the like, to implement its policies and to respond to the WCD. These safeguard policies also required the involvement of all relevant stakeholders, including the affected people, governmental agencies, and NGOs, operating within the country. In Lao PDR this included the International Union for Conservation of Nature and the Wildlife Conservation Society (NTPC, 2005d; Porter, Shivakumar, & World, 2011; Rosario, 2011). According to Rosario (2011) the International Union for Conservation of Nature and Wildlife Conservation Society were the key players in developing a management plan for the Nakai Nam Theun National Protected Area funded by the WB. Phomsoupha (2010) emphasised that the underpinning concept of the consultation workshops is to make sure that all relevant stakeholders, including those people who would be affected, are engaged, and their views on the potential environmental and social impacts would be taken into account during the project development process. The NT2 started commercial operation in 2010 and some downstream programmes were handed over to government agencies (McDowell, Scudder, & Talbot, 2014; NTPC, 2015d). Furthermore, one of the critical components of the project in relation to the resettlement programme, the resettlement implementation period, is expected to be finished by 2017 (Table 1-1) (McDowell, Scudder, & Talbot, 2015).

Table 1-1: The chronological events in relation to the NT2 development process

	1970s	1997-2003	2004	2005	2006-2009	2010	2011	2012	2013	2014	2015	2016	2017
Feasibility study													
Regional Consultation workshops (village, district, and provincial levels)													
International consultation workshops in Bangkok (Thailand), Tokyo (Japan), Paris (France), and Washington DC (United States)													
Construction activities commenced													
Construction of the resettlement villages and relocated the affected people to new villages													
Commercial Operation Date													
Project lands completed													
Handover the downstream programme to the local administration													
Handed over the NT2 public health and downstream programmes to the government agencies													
Nakai District was declared as an out of poverty district													
Achieved the household income target for the Nakai resettled people													
Proposed finishing terms for the resettlement implementation period													

Source: Adapted from McDowell et al. (2014); NTPC (2015c) and (McDowell et al., 2015)

The NT2 is constructed in the central part of the country, in the Khammoune province. It has capacity to generate 1,070 MW of electricity by diverting water from the Nakai reservoir through a 3.4 km tunnel to the powerhouse located on the base of Nakai District close to Gnommalat District (Baird & Quastel, 2015). The NT2 is also referred to as a trans-basin diversion hydropower project because the water that spins the turbines is not returned to the Nam Theun in Nam Theun watershed, but instead is diverted to Xe Bang Fai (XBF) in the adjacent watershed (that is, river basin) (Figure 1-4). The difference in height between the reservoir and the powerhouse is 348 metres. The water is then discharged into the XBF by a 27 km downstream channel (Descloux et al., 2016; NTPC, 2005a).

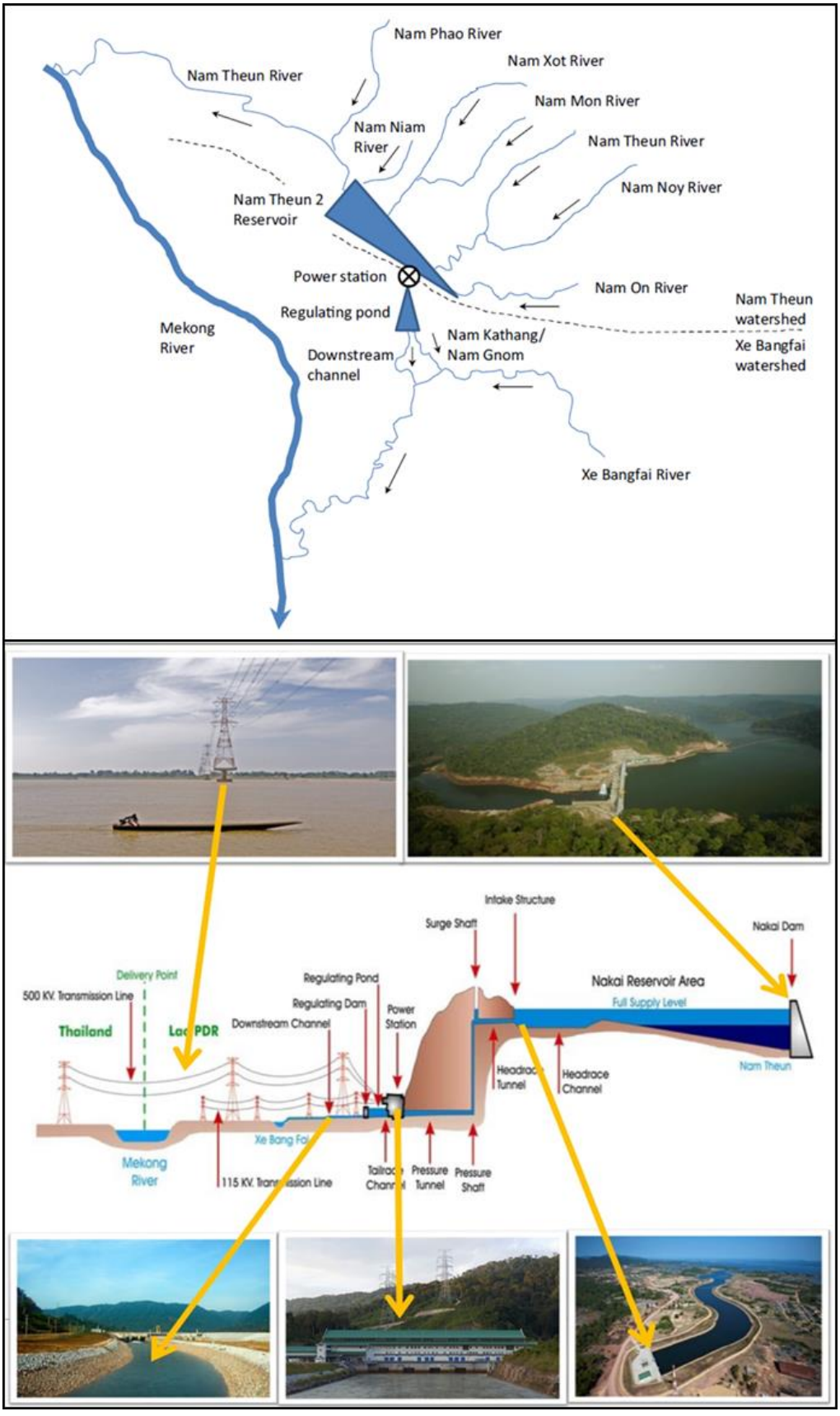


Figure 1-4: The NT2 component profile showing the Xe Bang Fai and the Nam Theun watersheds. Source: Adapted from Descloux, Guedant, Phommachanh, and Luthi (2016) (top) and NTPC (2015c) (bottom)

Morgan et al. (2009) documents that the NT2 is the first large-scale hydropower development that was supported by the WB in Lao PDR. Gray (2012) states that there were three main financial components that the WB supported. First, the International Development Association under the WB Group provided USD 42 million, known as International Development Association Partial Risk Guarantee[4]. Second, the International Development Association granted USD 20 million for the Nam Theun 2 Social and Environment Project[5] (WB, 2005), and third, the Multilateral Investment Guarantee Agency which was another member of the WB Group supplied USD 91 million through Multilateral Investment Guarantee Agency Guarantees[6]. The WB claimed the NT2 project was a successful model for future development of hydropower, not only in Lao PDR, but also in the wider region (Baird & Quastel, 2015; Manorom, Baird, & Shoemaker, 2017; Middleton et al., 2009). This was because the environmental safeguards, indigenous people, and involuntary resettlement policies developed by the WB and the ADB were applied to the NT2 project. Moreover, two additional assessments, the strategic environmental assessment and the cumulative impact assessment, were funded by the WB and ADB respectively (Morgan et al., 2009).

1.4. Personal motivation

Since 2008 I have been working with the Department of Environmental and Social Impact Assessment under the Ministry of Natural Resources and Environment in the field of environmental management. I am a technical officer, with major responsibilities reviewing Environmental Impact Assessment (EIA), environmental management plan and initial

[4] "The International Development Association Partial Risk Guarantee backs any debt service default on the covered tranche resulting from a limited set of activities and actions that are under Government of Lao PDR's control" World Bank (2005, p5)

[5] "The World Bank Group's financial support consists of: USD 20 million International Development Association grant for the Nam Theun 2 Social and Environment Project which finances a part of the Government's equity in the project to be used for management of environmental and social impacts, independent monitoring, and evaluation of the NT2 project" Gray (2012, p2)

[6] Multilateral Investment Guarantee Agency Guarantees covered the insurance for the investment against the risk of: currency inconvertibility and transfer restrictions; expropriation; war and civil disturbance and breach of contract (Multilateral Investment Guarantee Agency, 2006)

environment examination[7] reports of development projects concerning agriculture-forestry sectors, and also conducting compliance and effects monitoring of the developers' implementation of environmental management plan for development projects throughout the country.

I had not had the opportunity to be involved in any consultation workshops for the NT2 project because the project had almost finished its construction phase when I began my career with the Department of Environmental and Social Impact Assessment. I had heard about this project during my study at university through lectures together with the general view of my colleagues who referred to the NT2 project as being a successful hydropower model in Lao PDR. My interest in the hydropower development sector was formed in 2011 when I was selected as one of the Department of Environmental and Social Impact Assessment representatives to be a trainer for strengthening provincial staff's ability to review the initial environment examination reports of development projects, including hydropower, mining, agriculture-forestry, and infrastructure sectors in Khammoune province. This was the time when I heard more about the NT2 through the provincial officers. Another factor that also motivated me to be interested in the hydropower sector was during 2012 to 2013 when I joined on-the-job training with the Initiative Sustainable Hydropower programme under the Mekong River Commission [8] at Vientiane Office. Here I found that the hydropower development in the Mekong River mainstream like the Xayaburi dam was even more challenging because this hydropower development project involves several governments from the Mekong River Commission member countries.

I have known that prior to the development of the NT2, there were a number of hydropower projects that were constructed in Lao PDR that had a limited consultation process with the affected people, limited resettlement compensation, and resettlement policies as well as unsatisfactory EIA studies. These examples included the two hydropower schemes that had started their operations in 1998, the Theun Hinboun hydropower project funded by the ADB (Scudder, 2005; Virtanen, 2006) and the Houay Ho hydropower project (Delang & Toro, 2011).

[7] A small-scale development project requires an initial environment examination because it has a minor social and environment impact unlike the large-scale projects which are required to do the EIA due to its severe impacts on the environment.

[8] The Mekong River Commission is an inter-governmental organisation that consists of the government of Lao PDR, Thailand, Cambodia, and Vietnam that was established in 1995 for maintaining the sustainability of utilising and managing the Mekong River among member countries.

There was also the case of the Nam Mung 3 hydropower project that finished construction and had started its operation in 2005 (Sayatham & Suhardiman, 2015).

What interested me the most was that although the NT2 reflected a massive improvement in terms of providing the opportunity for stakeholder participation in the decision-making process of the hydropower development project, there were still some concerns in relation to the extent of meaningful participation in the consultation workshops (Singh, 2009) as well as the EIA of this project (Molle, Foran, & Kakonen, 2009). Furthermore, Baird et al (2015) emphasised, ongoing negative effects on the individuals along the XBF were still inadequately addressed. The Lao government has used its water resource, especially the Mekong River and its tributaries for running hydropower development projects in order to boost national socioeconomic development; however, without proper governance and monitoring by relevant authorities, including the Department of Environmental and Social Impact Assessment such development projects could lead to adverse effects on the environment and people's livelihood in the project areas.

More importantly, there are upcoming challenges for the Lao government in terms of managing sustainable hydropower throughout the nation because, as has already been alluded to, there are many proposed hydropower projects yet to be developed. It is for these reasons I decided to explore the NT2 project to gain an in-depth understanding about factors supporting the community engagement in hydropower development, including the ways to minimise the negative effects on local communities and to maximise the benefits for them. The affected individuals are the most critical stakeholders that should be engaged effectively in any hydropower development process. The lessons in terms of community engagement and hydropower development process in general from the NT2 would significantly contribute to improving and enhancing the effectiveness of future hydropower development projects in Lao PDR.

In recent years there have been a number of studies associated with the NT2. These included the study done by Phonepraseuth (2012), which indicated that the resettlement and livelihood development programme provided by the NT2 had the potential to support the five resettlement communities to achieve livelihood sustainability, despite the early stage of the programmes. Similarly, Souksavath and Nakayama (2013) highlighted that the majority of resettled people at four villages on the Nakai Plateau were satisfied with their current situation and only a small number of individuals expressed their concern in relation to limitations of their livelihood in the new villages, including limited land for agricultural activities provided by the NT2 project.

Sacklokham, Kouangpalath, and Kousonsavath (2014) conducted a document review in relation to the compensation and livelihood restoration programme of the NT2 for both upstream and downstream. This study highlighted that although the resettlement programme was implemented successfully in terms of providing infrastructure, such as housing and public services, there are challenges in relation to the livelihood development programme in the years to come because of an increase in the population and the limited natural resources in the resettlement area (Sacklokham et al., 2014). Livelihood restoration programmes for downstream communities will face critical challenges due to a limited budget and a lack of qualified officials dealing with monitoring and support after the NT2 transition to Lao government agencies (Sacklokham et al., 2014).

It is important to note that, most of the time, attention was placed on the resettlement areas and the effects on the resettled people rather than the downstream people who have also experienced changes to their environment and disruption to their way of life as a result of the NT2 project. Affected individuals in both the upstream and downstream areas of the project should be considered as equally important stakeholders, who need to be involved in the development process at all phases. Since there are many complex issues involved in a hydropower project development, including the NT2, it is a very challenging task for me, as a technical officer, under the Department of Environmental and Social Impact Assessment to find out the possible ways to address the critical issues surrounding the hydropower development project. One of the important ways of addressing the issues is to make sure that the affected individuals are well aware and able to engage in a meaningful manner with the future hydropower project.

The concept of Multi-Stakeholder Process (MSP) has been applied as a means of dealing with a wide range of issues at the international and national levels (Hemmati, 2002b; Moore et al., 2010), including water resource development challenges (Huntjens, Lebel, & Furze, 2015), improving the planning for using wastewater in agriculture in the countries (Varma, Evans, Carmen da Silva Wells, & Jinapala, 2009). Warner (2006); Varma et al. (2009) and Dore and Lebel (2010) believe that due to the complexity of water resource issues, an MSP should be used because this may lead to enhanced sustainability of water resource uses through its deliberate decision-making approach. Therefore, to further understand the complexities of the NT2 project, this research analyses the effectiveness of the MSP used in the development and operation phase for the NT2 project. This was achieved by assessing the level of community participation within the framework of the NT2 project development programme. Following

this the framework that was used in the project was compared with the international framework for MSP developed by Dore (2007) and public participation methods developed by Rowe and Frewer (2000). Huntjens et al. (2015) adopted these frameworks for evaluating three MSPs associated with water resource management at regional scale which were organised in the Netherlands, Lao PDR, and India. While several cases where the concept of MSP was applied at the international level, such as the United Nations global compact and WCD (Hemmati, 2002a), this research was focused on MSP at the community level in order to improve and enhance the meaningful participation of affected individuals with other stakeholders, including the government agencies, NGOs, and hydropower developers for the future hydropower development projects in Lao PDR.

The findings from this study will be beneficial to many parties including Lao government agencies, hydropower developers, local communities, and NGOs. It will enhance the effectiveness of designing, implementing, and evaluating the MSP for future hydropower development projects in Lao PDR. Also, once all stakeholders are actively involved in the hydropower development process, it is more likely that key issues associated with each stakeholder, at all phases of the hydro development process would be adequately addressed. As a consequence, the national socioeconomic development target would be achieved through a meaningful participatory approach for the hydropower development project.

1.5. Research aim and objectives

This research seeks to find an effective approach for future community involvement for the future hydropower development in Lao PDR. Three research objectives are developed as to support the exploration and evaluation of the community involvement approach for the case study as outlined below:

1) To determine community involvement during the development of the NT2.
2) To identify the approach used by the NT2 in addressing the challenges of community involvement in the project management programme.
3) To evaluate the effectiveness of community participation in the NT2 project compared to international practice.

To guide this study, research questions were framed as followed:

1) In what ways has the community been involved during the development of the NT2?
2) How did the NT2 approach the challenges of involving the community in the NT2 project management programme?
3) How can this community involvement approach of the NT2 contribute to the ongoing improvement of international practice in relation to MSP?

1.6. Scope of the study

With hydropower development around the world, often more attention is placed at the upstream affected area-resettlement site rather than the downstream affected area (Baird & Quastel, 2015; Manorom et al., 2017). McCully (1996); Richter et al. (2010) further emphasised that the individuals in the downstream area of a dam project tend to encounter several long-term effects on their livelihoods. Due to the size of the NT2, two parts were selected to represent the project. These included two upstream communities in the resettlement sites and two downstream communities. Within the resettlement sites, data collection took place at the resettlement communities of Village 1 Oudomsouk (V1) and village 2 Phonphanpek (V2) in Nakai District (Figure 1-5). The rationale for selection of V1 was because it consisted of host villagers: those who acted as host to those who were resettled because of the project, and the people who were not being relocated by the NT2 project because their properties were not flooded. Although there were only a few houses of the villagers in V2 affected by the inundation area, their upland rice areas, and fodder for their livestock were flooded. For these reasons, these two upstream communities are representative of other upstream communities affected by the NT2 project, especially regarding their experiences of compensation packages and livelihood restoration programmes provided by the project. More importantly, there has been no prior study specifically conducted in these two communities. The findings from these two upstream communities will help to establish a new set of information on affected communities upstream, and will also reflect the wide range of effects on different groups of villagers from the upstream communities.

For the downstream communities, the lower Xe Bang Fai (XBF) area was selected to examine the process of downstream livelihood restoration programmes that the affected people along the XBF experienced. Two affected downstream villages were included in the data collection were Navangyai (V3) and Phakeetou (V4) villages in Nongbok District. According to the

personal communication and consultation with the senior officials from the Natural Resource and Environment Office and the Nonkbok District Administration Office, these two downstream villages were considered as the most affected by the project and would therefore be the most suitable representatives of the affected villages in the Nongbok District.

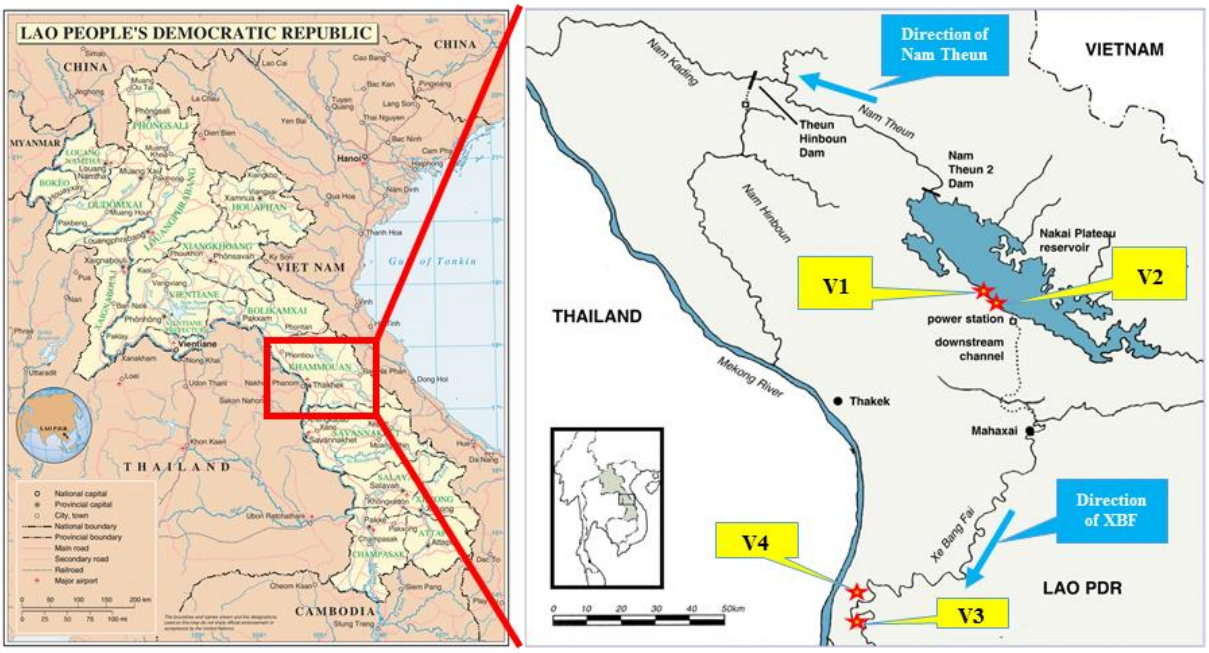


Figure 1-5: The map showing the study sites and the flow directions of the Nam Theun and Xe Bang Fai rivers
Source: Adapted from www.google.com (2016) (left) and International Rivers (2016) (right)

1.7. Structure of the thesis

In chapter 2 the literature review outlines the origin of the World Commission on Dam and its strategic recommendations which move to address effects on societies and environments by multilateral organisations like the WB and ADB. The importance of community engagement and the application of Multi-Stakeholder Process (MSP) approach into water resource management and governance, including the hydropower project is also described in Chapter 2. Following that, Chapter 3 explains the methodology of the study in detail, the research methods, and the analytical approach used to meet the research objectives. Chapter 4 and Chapter 5 then provide the research findings associated with the perceptions of the key institutions and the affected communities respectively. In addition, the discussion regarding the research findings associated with the international framework for MSP is highlighted in the two chapters. The final section of the thesis, Chapter 6, frames the conclusions and the recommendations in response to the research questions, and suggests future aspects of research.

Chapter 2: Understanding the importance of community involvement and the implication of Multi-Stakeholder Process in management of water resource

2.1. Introduction

This chapter provides a general understanding of the importance of community participation in hydropower development projects. This achieved by investigating the seven strategic priorities recommended by the World Commission on Dams (WCD) and the outcomes of hydropower developments that choose and choose not to follow them. Examples from around the South East Asian region, in particular, are provided because there is a similarity in geography and comparability in cultures to Lao PDR (Section 2.2). Four of seven strategic recommendations have been examined due to critical concerns surrounding their implementation across the hydropower arena. These four recommendations include: gaining public acceptance; sustaining rivers and livelihoods; recognising entitlements and sharing benefit; and ensuring compliance. With increasing debate on these critical issues, major changes to the policies and guidelines of the WB and ADB have occurred. These changes are explored in further detail along with the funding processes for the hydropower development sector (Section 2.3). In Section 2.4 the notion of Multi-Stakeholder Process (MSP) as a tool for enhancing the management of natural resources, including water resource management throughout the world, is scrutinised. Section 2.5 provides a justification for the evaluation framework adopted for assessing the effectiveness of the community involvement in hydropower development projects for the case of Nam Theun 2.

2.2. World Commission on Dams

This section highlights findings from the global large dam development review undertaken by the WCD and the proposed strategic priorities that were derived from that comprehensive review. The WCD (2000) recognised that large dam development projects have contributed considerably to human development; however in many circumstances, the negative effects associated with those projects are irrevocable, including the degradation of the environment and social effects on the affected groups of the dam development projects (WCD, 2000). To lessen the adverse effects these seven strategic priorities were recommended by the WCD:

i. gaining public acceptance,

ii. comprehensive options assessment,

iii. addressing existing dams,

iv. sustaining rivers and livelihoods,

v. recognising entitlements and sharing benefits,

vi. ensuring compliance, and

vii. sharing rivers for peace, development, and security.

Due to the complexity of issues associated with the dam development projects, the WCD (2000) acknowledged that there is the need for participation of relevant stakeholders to work effectively and deliberatively in a decision-making process. This is so that desirable solutions from that comprehensive process may satisfy the various needs of the many stakeholders. The strategic priorities of the WCD are explored in the following sections; however, it is important to note that two of the seven strategic priorities of WCD, ii) comprehensive options assessment; iii) addressing existing dams and vii) sharing rivers for peace, development, and security are not deeply explored in this research.

2.2.1. Gaining public acceptance

Gaining public acceptance is an important aspect which reflects a decision-making process to support the idea of sustainable water and energy resource development. In order to gain acceptance from the public, all stakeholders need to be involved and be able to influence the decision-making process for a proposed project. Of the affected groups, indigenous people, women, and youth are considered the most vulnerable stakeholders who need to be involved in the decision-making process. In order to recognise the rights of the indigenous people in the project area, the WCD (2000) states that free, prior, and informed consent is expected to be carried out in the project where indigenous and tribal people are identified as the affected groups of the dam and water development projects. Dore and Lebel (2010) emphasised that if affected people are involved in the project planning process, it is likely that their rights can be recognised and their risks can be addressed. This will in turn lead to wider acceptance of agreeable outcomes for the project; however, there is still evidence that indicates that since the introduction of the WCD recommendations in 2000, the concept of gaining public acceptance has not been applied effectively into new large dam development projects across the world.

Dore and Lebel (2010) mention that the Environmental Impact Assessment (EIA) is usually conducted by the project proponents, and that the affected people, and other interested parties, are usually excluded from the process. This lack of involvement of affected people was documented in the Kamchay dam hydroelectric development project in Cambodia. In this case, many stakeholders, including affected people who work as bamboo collectors in the project area, were excluded from the consultation process (Siciliano & Urban, 2016). For this reason, Middleton, Garcia, & Foran (2009. p40) referred to the negotiation process of the Kamchay dam as a "closed-door negotiation" process. This exercise of power reflected a lack of awareness in recognising the rights of all affected groups, as the WCD had clearly indicated that the free, prior, and informed consent should be carried out where affected people were identified. The free, prior, and informed consent aims to protect the rights and entitlements of all groups of affected persons to have an opportunity to participate actively in the project's decision-making process (WCD, 2000). Another example of failing to recognise the rights of the indigenous people affected by a large dam project is emphasised by Lee, Viswanathan, and Ali (2015). Their study focused on the development of the largest dam in Malaysia, the Bakun dam. They reported that there was a lack of consultation with the affected indigenous people regarding the EIA consultation process, compensation, and the relocation programme (Lee et al., 2015).

It has been acknowledged that sufficient project information and adequate time are significant components for ensuring the effective involvement of stakeholders. All relevant information that relates to a hydropower project needs to be available to all stakeholders, including the vulnerable groups so that they are well informed and are able to participate meaningfully in the decision-making process (WCD, 2000). Moore et al. (2010) state that most of the time the affected persons, especially the vulnerable groups, were not able to access the legal and financial documents. Therefore, their ability to exercise their rights was limited when considering the project; however, providing a large amount of project information alone is not necessarily helpful, if the time provided for reviewing the documents is a constraint. The WCD (2000) mentions that it is essential to allocate sufficient time for the affected groups to digest information so that they can discuss and consult with each other in an effective manner, regarding the project proposal that will affect them.

It is critical to make sure that the information provided to the affected individuals and the general public is appropriate and understandable. Different audiences require different ways of disclosing information. For the Tapovan-Vishnugad hydropower dam in India, the developer

and the government produced posters to provide some fundamental information on the project. There were still some affected people, however, who had very limited technical knowledge and who were therefore not be able to properly understand the information on the posters (Diduck et al., 2007). Appropriate language, including the use of local language, is another key issue that needs to be addressed for the effective delivery of information. Moreover, Diduck et al. (2007) found out that although the developer of the Tapovan-Vishnugad dam project produced a brochure containing key project information such as the project features, benefits, and the current progress, this information was available for the general public on request only. Furthermore those who would be affected were not able to access the relevant information, despite the project developer establishing an information centre adjacent to the affected villages (Diduck et al., 2007). These examples indicate that disadvantaged people encountered poor practice of gaining public acceptance as part of the hydropower projects' environmental assessment, including a lack of community participation in the planning and design processes of the project. Although some project information was disseminated to the public in some forms of information disclosure, this did not meet the main targeted audience who were the most affected by the hydropower project.

2.2.2. Sustaining rivers and livelihoods

The priority to sustain rivers and livelihoods emphasises the interconnectedness of the rivers and the livelihood of the local people, who are usually affected as a result of large dam development projects. This recommendation aims to maintain the global recognition that the environment affects human wellbeing. The WCD (2000) emphasised that rivers, watersheds, and aquatic ecosystems are essential for maintaining the local communities' lives and livelihoods. Large dam development alters the environment and social structures, and poses potential irreversible effects in the catchment. Therefore, it is essential for development projects to take this into account. The effects on the people are more obvious where the water and energy development projects take place in highly modified catchments. It is often these areas where most of the people depend on the water resources in the catchment for their livelihoods such as the use of rivers for catching fish and the use of floodplains for agricultural activities.

The WCD (2000) stated that the modification of the river upstream always alters the river ecosystem downstream. Dyson, Bergkamp, and Scanlon (2003) emphasised that environmental flow is an important factor supporting not only healthy rivers, but also poverty reduction. When

a river is dammed for a hydropower project, the people upstream are affected because of inundation, but also the people downstream are adversely affected by the change in water flow, which is strongly associated with river health and fishing as a resource. With this recognition the concept of setting environmental flow limits is recommended by the WCD (2000) for large dam projects with the hope that the ecological values of the downstream ecosystems and also the livelihoods of the communities downstream are maintained. Environmental flow limits are an important aspect that need to be clearly identified during the EIA process. More importantly, the EIA process needs to address the ecosystem health and people's livelihood by determining the importance of river flow to other water user groups downstream. Scodanibbio and Mañez (2005) point out that one of the proposed hydropower projects in the Lower Zambezi, in Mozambique, failed to recognise the rights of, and risks to, the affected people in the downstream area of the project. The Feasibility Study identified that approximately 500,000 people downstream were likely to be affected by the proposed hydropower dam project; however, those affected people did not have an opportunity to participate in the EIA consultation process (Scodanibbio & Mañez, 2005).

The importance of maintaining river health should be addressed in a national water policy, in accordance with the WCD guidelines (2000). An example of this is illustrated by the Water Act of South Africa. This Act strongly recognises that the national water resource management needs to sustain the resource for the benefit of all users, and it does this by identifying a reservation area prior to consideration of any other water uses for the river (WCD, 2000). A reserve area on the river should indicate the requirement for maintaining water quality and quantity to meet basic human needs, enabling the protection of aquatic creatures and ensuring sustainable development. At the same time the Act also enables the establishment of minimum environmental flow for ecosystem protection purposes. Other countries like Sweden have even designated some of its rivers to be hydropower-free rivers, while Norway preserved around 35% of its hydropower potential on their rivers (WCD, 2000); however, these examples should not suggest that all nations have the same water resource management policies. In fact, water resource management policies are based on the development needs of each nation and their critical consideration for utilising and managing their water resource for development purposes. This is especially important for the developing countries, including Lao PDR, where the natural resources are extracted and considered as a means to support the social and economic growth through a number of development projects such as dams. For this reason, the WCD (2000) acknowledged that where negative effects to threatened or endangered species

are unavoidable, a compensation plan needs to be put in place. This includes the likes of conserving other significant habitats, restoring the species in other locations, and that these aspects should be attached as parts of the project cost throughout its lifespan. It is also common that an independent panel be required to enhance the project assessment process (WCD, 2000).

2.2.3. Recognising entitlements and sharing benefits

The priority of recognising entitlements and sharing benefits is intended to help mitigate the impact of the dam development project on those displaced by the project. Past experience has shown that affected people who lose their habitats and livelihood from large dam development projects were not eligible to influence any alternative proposed by the dam project authorities (WCD, 2000). In many rural areas of the world local residents depend on natural resources in watersheds through a number of ways. These include accessing rivers for fishing, and investing in non-timber forest products such as mushrooms and bamboo for food and a source of income; however, there are many cases where local people who did not lose their homes or land in the inundated area were not identified as part of those affected. This is one form of not recognising rights to participate and influence the decision-making process of the project. It is also common to underestimate the effects of water development projects. As a consequence these affected groups of people were not eligible to receive compensation from the projects. For example, in the case of Kamchay dam in Cambodia, only the people who lost their garden land in the reservoir area were identified as affected. At the same time many of the local villagers, who are natural resource dependent people, were not classified as affected groups. Although these people traditionally depend on the bamboo forest in the inundated area of the Kamchay dam project, they were excluded from having opportunities to exercise their rights in the negotiation and consultation process (Siciliano & Urban, 2016).

Mega projects, including hydropower dams, are usually associated with the displacement of people (Gellert & Lynch, 2003). The displacement involves major changes of biophysical and social components of the project area. The biophysical alteration could be due to flooding for dam storage, diversion of water, while the relocation and loss of natural resources in the reservoir generate major social effects, resulting from displacement of mega projects (Gellert & Lynch, 2003). Dao (2010) and Mary and Curtis (2010) agree that resettlement not only leads to physical displacement, but also social, cultural, and livelihood disturbances to the affected population. This is because when the affected individuals relocate into the resettlement villages they need to adjust themselves into the new environment of the resettlement sites. Therefore,

mitigation, compensation packages, and development provisions to improve the livelihoods of those who are affected are needed when resettlement cannot be avoided (WCD, 2000). More importantly, all affected groups that are identified as stakeholders need to be included in joint planning and negotiating on mitigation, resettlement, and development activities associated with decision-making. In doing so these project stakeholders would be able to exercise their rights in influencing the negotiation process, and understand the implementation process, as well as factors associated with the options designed (WCD, 2000). For example, in the case of the Itá dam in Brazil, the government, the affected communities, including the host communities, joined the negotiation process. This allowed them to discuss the project's implementation plan, benefits sharing mechanism, and to promote resettlement as a development programme. As a result of this inclusive consultation, the project resettlement programme was managed by the local communities (WCD, 2000).

Another example illustrating how local people were empowered to exercise their rights in project planning occurred in the case of Mubuku 3 hydropower project in Uganda. In this example the local residents, together with relevant Ugandan authorities, were consulted and participated in a meaningful dialogue. This led to a clear projection of how much land would be affected as a result of the original project design, which directly induced displacement of people in the project area. From the consultation, the project canals were redesigned, which in turn minimised the displacement that resulted from the project (WCD, 2000).

In the negotiation and consultation process the benefits of the project need to be discussed in a transparent manner. Government authorities and the project developer are required to share the responsibility in making sure that the benefits from the project are fairly distributed. One common compensation used is in providing electricity to the affected peoples. For example, the Glomma and Laagen dams, in Norway, provided a great benefit by supplying electricity to around 1.3 million individuals in the Glomma and Laagen basin, and more than 2000 people were permanently employed (WCD, 2000); however, there is not always a better outcome for the recipients. The study of Obour, Owusu, Agyeman, Ahenkan, and Madrid (2016) highlighted that although the affected people of the Bui dam in Ghana were provided with electricity, they are suffering because of their dependency on electricity and the increasing price of electricity. Generally, mega projects often represent an unfair benefit-sharing aspect because they create a greater benefit to urban people than to those affected in the local area (Gellert & Lynch, 2003). For instance the local people who were affected by the Kamchay dam project did not have the opportunity to get access to the electricity generated by the project

because the electricity was used to fulfil the high demand of energy from the capital city, Phnom Penh (Siciliano & Urban, 2016). It was found that only verbal agreements were made for providing electricity and for livelihood modifications for the Kamchay dam-affected people (Siciliano et al., 2015).

The WCD (2000) highlighted that an independent panel could be employed for assisting the dam development project in preparing the strategic and cumulative impact assessments. Even though large infrastructure development projects may create opportunities for affected residents, by providing new ways of making their living, large-scale projects usually lead to changes in natural resources, which the local people depend on for their livelihood (Moore et al., 2010). Dao (2010) states that one of the common challenges for the relocated people is the lack of fertile land in the resettlement area and this in turn leads to struggles in maintaining the same level of productivity as their previous villages. For example, Obour et al. (2016) found that the relocated people of Bui dam in Ghana were provided with inadequate and unfertile land by the project developers. At the same time, it was recorded that the relocated people were planting new crops such as squash and gourd, which were not suitable for growing in the soil of the resettlement areas (Obour et al., 2016). Dore and Lebel (2010) acknowledged that although it is difficult to guarantee the success of the implementation of benefit-sharing mechanisms, it does not mean it is impossible. Effective mitigation measures need to be implemented in order to balance the need for improving national economic growth, while maintaining the environmental health and social wellbeing of the affected people (Siciliano et al., 2015). Moreover, Diduck et al. (2007) suggested that it is important to include public participation in the decision-making process of the hydropower dam in order to ensure that good governance is met. This includes adequately informing affected individuals, taking into account their opinions, and addressing their critical concerns with regard to the effects of the project. Ensuring effective implementation of safeguard policies during the project construction and operation provides an assurance that the livelihoods of the affected people are improved and maintained (Diduck et al., 2007).

Phelan and Dawes (2013) believe there is an ideological orientation that negative effects can be minimised and compensated for. This is strongly influenced by the notion that net economic benefits and other infrastructure improvements from the mega project always outweigh the drawbacks (Phelan & Dawes, 2013). Prominently, these forms of benefit sharing and compensation packages should be discussed, and agreed on, with all affected groups (Scodanibbio & Mañez, 2005). In many cases large dam projects have provided better living

conditions to the affected people, especially women and the young through infrastructure development in the resettlement areas and from irrigation systems. For example, the Akosombo dam, in Ghana, provided benefit to 80,000 resettled people through its infrastructure development of 82 school blocks, 42 markets, 146 public toilets, 52 boreholes, 6 wells, and 162 water standpipes. These facilities allowed the affected peoples and their children access to education which in turn led to the reduction of local illiteracy rates (WCD, 2000).

2.2.4. Ensuring compliance

Dore and Lebel (2010) state that sometimes large water infrastructure development projects cannot maintain the promises made to the affected people. This issue is also recognised in the WCD (2000) report which notes that previous experience shows that governments have agreed to apply a number of international guidelines in relation to environmental aspects, but these have been poorly implemented. It is unethical to ignore the inputs from the affected communities into the project design. One example of this is the request by those who were going to be resettled for their new villages to be relocated nearer to the river, but this was refused by the government of Malaysia and the Bakun dam developer (Obour et al., 2016). Breaking promises in terms of providing electricity was also documented for the Bakun dam project where the affected communities were given assurances that free electricity would be provided to the affected individuals; however, after only two years of free electricity residents began receiving power bills (Sovacool & Bulan, 2011). Moore et al. (2010) also emphasise that the affected people do not always obtain the benefits as described, or sometimes the promises do not satisfy their expectations. For the Bakun dam in Malaysia, it was reported that the compensation packages which included land allocations in the resettlement areas did not meet the relocated people's expectations (Lee et al., 2015). A study by Sovacool and Bulan (2011) revealed that the affected persons, especially those who had low education and did not know how to follow the compensation procedure to claim for the loss of their land were severely adversely affected by the project. For example, those affected received only 3 hectares of land per family, despite previously owning 40 hectares prior to the project (Sovacool & Bulan, 2011).

Another lesson related to ineffective ways of gaining public acceptance is mistrust from the affected communities of the dam project. There are many cases where the affected people were not satisfied with the ways that they were treated by the project owner and the host government of the project. It was ascertained that sometimes the representatives that were sent to the

affected communities for consultation about a project presented only the positive effects, while the negative effects were excluded (Diduck et al., 2007). Moreover, project information such as the EIA report and its summaries, were not provided to the affected community. It was also reported that during the so-called consultation session the affected people did not adequately receive answers on some questions they raised (Diduck et al., 2007). Furthermore, the research participants in the study of Diduck et al. (2007) reported that the government representatives were low-ranking officials who had no power to discuss the critical issues raised by the affected communities, which in turn led to disappointment by the affected people (Diduck et al., 2007). In the case of Bakun dam in Malaysia, only a few community leaders were informed about the benefit and compensation that the affected people can receive from the Bakun dam project. Most of the affected people were not allowed to participate in the negotiation process with the government and the dam developer (Siciliano & Urban, 2016). More importantly, although the proposed compensation options were discussed and the suggestions were made by the affected individuals during the EIA preparing process, those compensation packages were not implemented during the operational phase of the project (Siciliano & Urban, 2016).

According to the WCD (2000) ongoing monitoring is required in order to manage the effects of projects and there should be sufficient budget and resources for implementing the monitoring activities together with clear tools or guidelines for facilitating the implementing process. Diduck et al. (2007) documented that the affected people for the Tapovan-Vishnugad hydropower dam did not have clear clarification nor the assistance regarding funding for managing the catchment development plan from the project owner and the government, even though it was documented in the project's mitigation and management plan. Siciliano and Urban (2016) also highlight in their study of the Bui dam in Ghana that there was no ongoing support in terms of livelihood development programmes. This should have included new skills training for alternative livelihoods and new farming techniques. These programmes should be included in the mitigation measures for social effects of the project (Siciliano & Urban, 2016). It is vital that effective compensation and benefit-sharing mechanisms for large water infrastructure development projects are implemented. Providing suitable and ongoing support for the affected people could be a prominent factor contributing to helping them to adapt to the environment and making a living.

There are three recommendations of the WCD that are not deeply researched for this study namely, comprehensive options assessment (Section 2.2.5); addressing existing dams (Section 2.2.6) and sharing rivers for peace, development, and security (Section 2.2.7). Although the

key messages of these three strategic priorities are introduced, the reasons of excluding them from this study are also noted.

2.2.5. Comprehensive options assessment

A comprehensive options assessment is essential for assessing and selecting the water development alternative that best meets the priority needs of the nation, including water use for irrigation and energy generation (WCD, 2000). The assessment gives the same value to social and environmental aspects as other aspects such as economic and financial factors to provide a clear picture to aid in selecting the best water development alternatives. For the NT2 project the concept of comprehensive options assessment was not expected to be explored throughout this study because the NT2 project was identified by the Lao government as a primary water development option (Scudder, Talbot, & Whitmore, 1997b) and the development of the NT2 project was considered to be the most reasonable development option (Porter & Shivakumar, 2011) in terms of cost benefit analysis with regard to environmental and social effects (Zeeuw, Salim, & McDowell, 2005); the net benefits of the project were estimated to outweigh any drawbacks (Zeeuw et al., 2006). This means that through the NT2 hydropower scheme it would contribute to the social and economic development, including poverty eradication of the nation (Zeeuw et al., 2006). Secondly, the fundamental purpose of this study is to focus on the hydropower development sector, although other related benefits from the NT2 project in terms of irrigation development are also highlighted.

2.2.6. Addressing existing dams

The main target of the WCD strategy that addresses existing dams is to assess the outstanding social and environmental effects of large dam development projects that have been implemented prior to the introduction of the WCD recommendations. Many of these existing dam projects had weak management performance including poor maintenance and lack of consideration when allocating project benefits, especially to disadvantaged groups. Therefore, the WCD introduced options to handle existing issues through reconsideration of the management process and mechanisms for minimising the ongoing effects on the affected communities. At the same time the project owner should also refurbish or upgrade dam equipment and facilities in order to enhance the effectiveness of the dam development in the new era. Therefore, these issues are expected to be less relevant to the case of the NT2 project because it was developed after the recommendations of the WCD were introduced in 2000.

2.2.7. Sharing rivers for peace, development and security

In Lao People's Democratic Republic (Lao PDR) the Mekong River is the only international waterway. It originates in Tibet and then flows through Lao PDR, Myanmar, Thailand, Cambodia, and ends in the Mekong Delta in Vietnam. The Nam Theun 2 project is a trans-basin diversion project affecting two of the Mekong River's tributaries, the Nam Theun and Xe Bang Fai (XBF). The Nam Theun is dammed by the main dam of the NT2 project which creates a large reservoir on the Nakai Plateau. The water from this reservoir is then piped out of the basin to generate electricity and is then discharged into the XBF, rather than back into the Nam Theun (refer to Figure 1-4). It could be argued that the NT2 project could change the flow of the Mekong River and thus affect the riparian countries like Cambodia and Vietnam downstream. According to Mekong River Commission (1995) any construction of a dam on the mainstream of the Mekong River would need to involve the member countries (Thailand, Lao PDR, Cambodia, and Vietnam) in regional consultation workshops, as per the 1995 Mekong Agreement, adopted by those four member countries. Because, however, the impact from the NT2 is likely less significant than other hydropower projects that are under construction in the mainstream of the Mekong River, such as the Xayaburi hydropower dam in Xayaburi province and the Don Sahong hydropower dam in Champasack province. Also, the transboundary effects are outside the scope of this study.

The literature highlights that the fact that the WCD as an Multi-Stakeholder Process (MSP) would not enable in bringing any benefits to dam-affected people if there were no parties to put the recommendations into practice (Scodanibbio & Mañez, 2005). Moore et al. (2010) and Smith (2010) point out that the principles recommended by the WCD were not inserted into all stakeholders' practices, including with China who are the new key financier in relation to hydropower development projects. Siciliano and Urban (2016) report that the Kamchay dam, Bakun dam, and Bui dam were all developed by the Chinese dam developer Sinohydro with the financial support by China's Exim Bank. All three of these developments had controversial issues with regards to the negative effects on the local people from the dam development. Despite the criticisms of the Chinese investors of dam development, the NT2 is one of the large-scale hydropower projects that has been supported by WB and ADB. An exploration of the key important issues associated with hydropower development projects is presented in the next section and it consists of specific information in relation to the safeguard policies of the two banks (WB and ADB). A closer examination as to how the banks incorporate the critical issues of the dam development debate into their safeguard policies is provided to identify the

key values and recommendations of the WCD for enhancing the sustainability of the bank-funded dam development projects.

2.3. World Bank and Asian Development Bank's safeguard policies in hydropower development

This section investigates the key aspects that have been addressed in the safeguard policies of the WB and ADB. The policies were influenced by the recommendations of the WCD. The recommendations drew attention from all sectors, including the dam developers and NGOs. As the two banks are the multilateral organisations who have supported past mega project developments, they need to take into account the WCD recommendations. To do so will ensure that the lessons from the previous funded projects that failed to address the important aspects will be improved for all following projects. The main safeguard policies of the two banks are a policy on involuntary resettlement, indigenous people, and the environmental assessment guideline. The rationale is to investigate first, how the concept of gaining public acceptance is addressed in the overall procedure of the banks. This is one of the most important factors that the banks need to master to get great support from the public for the bank-assisted projects, including hydropower. Secondly, to indicate how three strategic priorities: i) sustaining rivers and livelihood, ii) sustaining rivers and livelihoods, iii) recognising entitlements and benefit sharing, and iv) ensuring compliance, are embraced into both the involuntary resettlement and indigenous peoples' policies and also the environmental assessment procedures of the two banks. Large dam projects often require displacement of people, including indigenous individuals, and therefore the involuntary resettlement and indigenous peoples' policies need to address adequately the issues associated with the projects. The effects of modifying rivers in the watershed are not limited to those who live upstream, or in the resettlement size, but to the whole catchment area, including downstream. Therefore, the bank policies need to cover a wide range of effects and at the same time make sure the banks funded projects are socially, economically, and environmentally developed.

2.3.1. Requirement for public participation

In order to make sure that the assisted projects of the WB and ADB are publicly accepted the banks set the requirement for the funded states to consider the participation of stakeholders in the project development process. This requirement directly reflects the fundamental purpose of gaining public acceptance recommended by the WCD. The two banks state that public

participation is one of the key elements that allows the public to influence the decision-making process of projects associated with the use and management of the natural resources (ADB, 2003b). Public consultation is a mandate under the safeguard policies of the WB and ADB in relation to environmental assessment. An Environmental Impact Assessment (EIA) is carried out to ensure that the development projects are environmentally sound and sustainable (WB, 2013b). The EIA process covers the identification of both natural resources and social potential negative and positive effects that result from the project. The assisted development projects need to take into account alternative options for designing the project so that possible negative effects are minimised, while positive effects are maximised (WB, 2013b).

It is expected that public consultation be adequately conducted at least twice: once during the EIA field work and then again when the EIA draft is produced, prior to the appraisal process by the bank (ADB, 2003b; WB, 2013b). In order to enhance the meaningful participation of stakeholders, all funded projects are required to publicly disclose information in relation to the project needs of all affected people and other interested parties. It is essential that the information is provided in comprehensible language (ADB, 2003b; WB, 2013b). There are five groups of stakeholders that should be involved in planning and implementation of the project. These are:

i. local communities,
ii. civil society,
iii. government and local government bodies,
iv. private sector bodies and
v. other institution (ADB, 2003b).

Primary stakeholders are those who are directly affected by the project either positively or negatively. Other stakeholders are those who are indirectly affected; these could be the residents in surrounding areas, the local civil society, and the local regional and national organisations (ADB, 2003b).

The input from stakeholders needs to be taken into account during the EIA process (ADB, 2003b; WB, 2013b). The engagement of the stakeholders into the dialogue will lead to better understanding people's expectations. In addition it will help in identifying potential causes of conflict so the possibility of encountering conflict is minimised (ADB, 2003b). This also provides a benefit in terms of reducing potential cost overruns on the project that could be a

result from the delays due to conflict (ADB, 2003b). The public consultation activities, implementation of the environmental management plan and ongoing consultation are monitored and evaluated (ADB, 2003b; WB, 2013b). Gellert and Lynch (2003) mentioned that most of the time NGOs and affected communities are stakeholders who are included into the mega-project development cycle at a very late stage, which renders them powerless. The WB (2013b) and ADB (2003b) have determined that the public consultation needs to be conducted as early as possible in the project development process. Reed (2008) points out that most of the time the stakeholders were not involved in the early stages of the project development process but rather the implementation process. All development projects backed by the banks are required to engage and consult with stakeholders, including the local communities and NGOs throughout the project lifespan (ADB, 2012).

2.3.2. Policy on involuntary resettlement

This policy on involuntary resettlement aims to address the important aspects that should be considered for the resettlement process for people who are to be relocated because of a development project. Gellert and Lynch (2003) state that most of the time large dam projects induce displacement, including relocation due to the inundation. For this reason, affected people are forced to move to make way for the development projects. It is acknowledged that involuntary resettlement can lead to long-term disadvantages for the affected peoples including from environmental depletion if there is no effective mitigation measure implemented (WB, 2013c). Thus, where there is a possible alternative, involuntary resettlement should be avoided (ADB, 2012; WB, 2013c). The WB and ADB do, however, also give room for involuntary resettlement to be considered by acknowledging that where involuntary resettlement is unavoidable the affected people from the project are expected to be provided with assistance and support to make sure that their wellbeing is improved (ADB, 2012; WB, 2013c).

In order to make sure that the entitlement of the affected persons and their livelihoods are maintained the banks state that displaced residents need to be consulted and provided with an opportunity to be involved in the planning and implementation of the resettlement programme (ADB, 2012; WB, 2013c). The resettlement plan is required to ensure that the affected people are informed, consulted with, and offered options for livelihood development. The resettlement plan needs to be supported by the affected people, including the indigenous groups as part of the free, prior, and informed consultation process (WB, 2013a). The involuntary resettlement policy is designed to cover both those who are relocated as well as those who are not relocated

but, who still lose their properties or access to assets used for their livelihood (ADB, 2003b; WB, 2001). Where it is identified that compensation in the form of land for land basis is inadequate, it is very important to make sure that those affected will be provided with appropriate alternative livelihoods to compensate for their losses (ADB, 2003b; WB, 2001). The affected communities are expected to be consulted in a meaningful way in preparing the resettlement documents and it is also necessary to ensure that displaced people have sufficient support and assistance to improve, or at least restore, their livelihoods (ADB; WB, 2001). Reed (2008) states for enhancing the comprehensive understanding on the potential environmental issues in the project area, that it is beneficial when the local and scientific knowledge is integrated into the project environmental mitigation measures.

The participation of displaced people is needed in the resettlement planning and implementation process. Vulnerable groups of people such as the elderly, women, children, indigenous people, and especially those who are identified as living under the poverty line require more attention and assistance in order to make sure that their socioeconomic status is improved (ABD, 2012; WB, 2013c). Those who will be affected need to be identified as early as possible, preferably during the project identification stage, so that an unpredicted influx of population who might look to take advantage from the project is prevented (ADB, 2003b). When relocating people into existing communities, the relocated people need to be closely assisted to adapt both socially and economically to the host villages to avoid adverse effects on the host communities (ADB, 2003b). The project owner is required to provide information in relation to the resettlement of the affected people, including the indigenous peoples, and other stakeholders as part of the resettlement process and to use the likes of mass media and public meetings to achieve this (WB, 2013a). It is critical to ensure that the language used for delivering the resettlement information is understandable to the affected people (ADB, 2003b).

Relevant agencies are required to consult closely with affected people as early as possible to incorporate their concerns and views into framing the resettlement plan (ADB, 2003b). Moreover, during the implementation phase it is expected that the affected people will be consulted with again in order to monitor whether any assistance or support is needed for handling issues raised by them (ADB, 2003b). Implementation of the resettlement activities needs to be associated with other project components so that all relevant restrictions of the project will not be inactive if the mitigation measures for the relocated people are not implemented (WB, 2001).

2.3.3. Policy on indigenous people

The WB and ADB policies on indigenous people recognises that the countries/clients borrowing from the banks need to avoid adverse effects to the indigenous people resulting from the funded projects. The policy also recognises that when negative impacts cannot be avoided, adequate compensation needs to be provided to the affected indigenous people (ADB, 1998; WB, 1999). The effects on the indigenous people and their concerns about the project need to be identified and addressed as early as possible in the project development process (ADB, 2012; WB, 2013a). In doing so the process of free, prior, and informed consultation is required (WB, 2013a), and this needs to be a transparent process, one without any external manipulation, interference, or coercion (WB, 2013a). The organisation of the village needs to be recognised during the consultation process, including elderly groups, headmen, tribal leaders, and other vulnerable groups such as women and youth (WB, 2013a). All parties that are consulted with need to be able to access sufficient project information and the information provided needs to be supplied in an appropriate manner, form, and language (WB, 2013a). The bank-assisted development projects that affect the indigenous peoples need to come up with an indigenous people development plan in order to address their concerns (ADB, 1998; WB, 2013a).

The WB and ADB provide assistance to strengthen the relevant government agencies and their development partners in formulating and implementing the indigenous peoples' plan, policies, strategies, and other specific activities (ADB, 1998; WB, 1999). The intended project should also involve all relevant stakeholders such as government agencies and NGOs who are experts in the field of indigenous people when preparing and designing the plan (WB, 1999). The plan needs to be considered as an integral part of the project design (ADB, 1998). The WB (1999) indicated that maintaining the participation of the indigenous people during the project planning, implementation, and evaluation is vital. The social and cultural contexts, religious beliefs, and resource use are key elements that need to be considered when designing the plan (ADB, 1998; WB, 1999).

It is more likely that incorporating local and scientific knowledge into the design process would lead to better outcomes rather than completely introducing new types of principles when making the plan (ADB, 1998; WB, 1999). The WB and ADB's policies suggest that if the government's institutional capacity for dealing with the indigenous people is weak, then anthropologists and local NGOs should be involved as early as possible so that they can play an imperative role in finding out the suitable mechanism to work with the indigenous people

(ADB, 1998; WB, 1999). Affected people, including indigenous peoples, need to be satisfied with the plan and its mitigation measures and also the benefit-sharing and grievance mechanism that would be applied to the project (ADB, 2013; WB, 2013a). Furthermore, The WB (1999) emphasised that the indigenous plan is more likely to be achieved if those affected have participated in a meaningful manner in designing and developing the plan.

Gender equality is crucial and must be considered and incorporated in all project development stages, including the planning and management process (ADB, 2003b). This is because the hydropower development project affects all people in the irrespective of gender, and therefore, all people should be treated equally and encouraged to participate regardless of gender (ADB, 2003b). The social dimension is a vital element that needs to be considered in the operation of safeguard policies. The ADB (2003b) lists four main keys that should be covered:

i. poverty reduction,
ii. gender and development,
iii. human resource development and
iv. vulnerable groups.

The quality of life of relocated people, especially the poor needs to be improved, in particular their living standards and social skills (ADB, 2003b). The poor and other vulnerable groups should be provided with appropriate assistance to improve their income generation options, health care services, and education. The indigenous people who are usually limited in adapting into new environment in the resettlement areas need to be provided with sufficient support, including skill development and wage employment, if displacement land is unavailable (ADB, 2003b). Other vulnerable groups such as children need to be treated with care to prevent them encountering adverse effects resulted from the changes in their society (ADB, 2003b).

2.3.4. Addressing the ensuring compliance

The WB and ADB have the right to monitor each development process of their funded projects to make sure that the development of those projects comply with bank policies and requirements. During the project preparation process, the banks can be involved in the consultation process to capture what the main concerns of the affected communities and other relevant stakeholders are and how those issues will be addressed (ADB, 2012; WB, 2016). The WB and ADB also reserve the right to monitor the implementation of the projects, including

the resettlement processes, and the environmental and social performance of the funded projects, all of which are subject to legal agreements and requirements (WB, 2016).

Monitoring and evaluation is important and should be conducted by experienced social science professionals. The countries/clients borrowing from the banks are required to conduct their own internal monitoring with the relevant authorities. This is to enhance the effectiveness of the mitigation, compensation, resettlement and development provision associated with the livelihood restoration of the affected peoples (ADB, 2003a, 2012; WB, 2013c, 2016). Where the funded projects are expected to consist of complex environmental and social issues, the independent expert or the international advisory panel could be employed for assisting and providing technical advice to the project (ADB, 2012; WB, 2016).

The WB and ADB policies and guidelines are underpinned by Multi-Stakeholder Process (MSP) principles; however, they need to be developed further by incorporating the international MSP practices. The next section describes the concept of MSP, outlines the benefits of adopting this concept into improvement of the project planning and decision-making process, and addresses the ways in which the MSP needs to be well designed and effectively implemented to be an effective tool for managing and governing the resources.

2.4. Multi-Stakeholder Processes

This section provides an understanding of how MSP has been applied to various project planning and decision-making processes. The section also documents the benefits of incorporating an MSP into management practices. First it is important to understand what MSP is about. Dore (2007. p199) defined MSP as "one part of governance where actors with either a right, risk or general interest (stakeholders) are identified, and usually through representatives, invited and assisted to interact in a deliberative forum, aiming for all participant to learn, understand alternative perspectives, and possibly negotiate workable strategies and agreements".

Faysse (2006) mentions that the concept of MSP has been promoted as a global best practice tool for handling critical issues around the use of natural resources mainly in developed countries and is now being widely implemented in developing countries. An MSP has become a topic of interest in the water resource management area (Warner, 2006). This is because an MSP has been seen as way of overcoming the limitations of the traditional form of representative democracy into more of a participatory democracy pattern (Faysse, 2006). Further, the concept of MSP is viewed as a significant mechanism that may help in identifying

and addressing complex water issues in the water management arena (Dore & Lebel, 2010; Varma et al., 2009; Warner, 2006). The example of applying the concept of MSP for addressing the water resource issue conducted by the WCD in 2000 on a mega dam development has been used as a reference for developers of large dam developments since then. The reason is that it is considered to have robust criteria, policies, and decision-making processes for addressing critical pitfalls (Moore et al., 2010; Smith, 2010). More and more calls for public discussion are made through MSP prior to decision-making for large-scale development projects (Faysse, 2006). The belief is that once stakeholders are involved in the decision-making process, they are more likely to accept the solutions made for resolving problems (Faysse, 2006). Smith (2010) points out that, since 2000, the notion of developing large water infrastructure to tackle poverty has intensified in the dam development arena. Inevitably, the NT2 mega hydropower project is also expected to be a significant development contributor to alleviate poverty for the Lao people. The affected people in the Nakai Plateau of Khammoune province (upstream of the project) are an example of this (ADB, 2005; Porter & Shivakumar, 2011). Dore (2007) outlines the three components of a desirable MSP (context, process, and outcome) and these are described in the following sections.

2.4.1. Desirable context of Multi-Stakeholder Process

The WCD is an embodiment of the MSP and several times the concepts of MSP have been adopted by many management sectors, including the water management sector (Dore & Lebel, 2010). The concept of MSP has been widely applied in many parts of the world in order to handle several critical complex issues. For example, the study of Varma et al. (2009) explored the application of MSP for improving the monitoring planning programme of the Wastewater Agriculture and Sanitation for Poverty Alleviation for the two cities of Kurunegala, in Sri Lanka, and Rajshahi, in Bangladesh (Varma et al., 2009). The Wastewater Agriculture and Sanitation for Poverty Alleviation was focused on improving holistic planning for wastewater use in agriculture especially in the peri-urban areas in developing countries (Varma et al., 2009). In this context, it was expected that once the wastewater management and sanitation were improved it would lead to improving urban water quality, reducing health risk issues, and improving living conditions of the local people in the two cities (Varma et al., 2009). In another example, in Cochabamba city in Bolivia, local communities opposed the government initiated water and sanitation project called Macoti (Faysse, Cossio, Quiroz, Ampuero, & Paz, 2007). As a result of the disagreement, an MSP was used to handle the conflict of water use for

different users, including the community-based committees, the local farmer irrigation association, and the government.

In the Mekong region, MSP has been increasingly recognised as a central means for management and governance of water resources (Smith, 2010). For the water dialogues on "Exploring water futures together: Mekong Region Waters Dialogue" conducted in Lao PDR, in 2006, a diverse number of international organisations were assembled. These organisations included the International Union for Conservation of Nature, the Thailand Environment Institute, International Water Management Institute, and the Mekong Programme on Water Environment and Resilience (Huntjens et al., 2015; International Union for Conservation of Nature et al., 2007). In this context, the MSP was employed in order to enhance the water governance in the Mekong region through participating, debating, and learning from the multi-regional stakeholders, including officials, NGOs, and businesspeople (International Union for Conservation of Nature et al., 2007).

Apart from these examples the concept of the MSP was also brought into watershed management practices because the notion of bringing together the different groups of stakeholders who have different interests in the catchment would help to address potential key issues that could be raised within the catchment (Smith & Cartin, 2011; Warner, 2006). The preparation of a master plan for the IJsseldelta South in the Overijssel province in the Netherlands, aimed to cover the critical issues that occurred in the catchment, including the urban expansion, infrastructure development, and water resource management. For this reason, all stakeholders were called to contribute to the development of the plan with the project planners (Huntjens et al., 2015). Simon and Bruce (2006) share the belief that involving different types of stakeholders can also lead to an enrichment of ideas being generated by different perspectives and interests. They assert that creative ideas can be drawn on in exchanging the knowledge and traditions from among the diverse group of stakeholders (Simon & Bruce, 2006). Therefore, involving all different water user groups into the project planning and decision-making process minimises the number of conflicts among different users (Varma et al., 2009).

2.4.2. Desirable process of Multi-Stakeholder Process

Within the MSP there are several factors contributing to the effectiveness of the process such as a willingness to learn and share from one another, adequate information, and fair facilitation. Although it was believed that involving a wide range of key players in the dialogue would lead

to better planning and decision-making process, Warner (2006) argued that gathering people in the same venue does not always mean that the issues will be solved. Instead, the stakeholders all need to come with a willingness to share, develop ideas and to learn from one another in order to enhance the function of the process (Warner, 2006). For example, in the case of the Wastewater Agriculture and Sanitation for Poverty Alleviation programmes in Sri Lanka and Bangladesh, it was revealed that initially the stakeholders were too focused on satisfying the donors in their own sector rather than on learning about the process. The related water use sectors were not aware of the linkage between their agencies and others, so for example, the industrial sector did not understand that their untreated wastewater was used by local farmers for irrigation and that this could cause health risks to consumers. According to Varma et al. (2009) these stakeholders' perceptions and understanding changed after they joined the review and reflection session as part of the MSP. The review session allowed the stakeholders who were involved in the process to be aware of the cause and effects of ineffective water management. By exchanging their views and concerns during the review and meeting process it led to strengthening the willingness of the stakeholders to participate in the joint planning and monitoring process (Varma et al., 2009).

Providing relevant and sufficient background information beforehand is key. This enhances the opportunity for all stakeholders to be prepared for meaningful discussion as they can become familiarised with the topic (Huntjens et al., 2015). Hemmati (2002a) states that input from all stakeholders is important and therefore the ability to access relevant information is necessary to ensure that meaningful contributions will be generated during the discussion. Lack of effective communication among stakeholders, including the government agencies, local NGOs, and the communities is a main issue preventing the distribution and dissemination of successful techniques that could be beneficial to the process (Simon & Bruce, 2006). For example, in the case of the Mekong water dialogue, it was found that a set of documents that were expected to be discussed were not provided beforehand. This inhibited the other stakeholders from discussing it at the meeting (Huntjens et al., 2015; International Union for Conservation of Nature et al., 2007).

It was suggested that individuals are usually good at focusing on their own interests during a discussion. It is vital therefore, to make sure that a discussion is not dominated by only a few participants (Huntjens et al., 2015). The platform should be maintained with fairness and balanced opportunities for other participants to have their voice heard. This allows for the constructive conversation and captures a wide range of issues and interests at the one time

(Huntjens et al., 2015). Open dialogue not only helps in building trust for the key stakeholders, but it also facilitates the setting up of the role and responsibility for each key player (Smith, 2010). It is for just this reason that the use of facilitators can make a significant contribution to the effectiveness of the discussion during the process (Huntjens et al., 2015). In the instance of the Mekong water dialogue, the International Union for Conservation of Nature as an international organisation played an integral role in facilitating and maintaining the dialogue which allowed the participants to debate in an effective and constructive manner in the international context of water resource (Huntjens et al., 2015). Although highly experienced independent facilitators are crucial, Varma et al. (2009) noted that in developing countries finding international or external highly skilled facilitators could be difficult to find to run the MSP and to operate such a large budget. Therefore they believe that local experts can help in fulfilling this task in some cases (Varma et al., 2009).

An initiative that is top-down may find it very difficult to provide justifications to those at the grassroots that the platform established is focusing on handling the issues rather than taking over their initiatives (Warner, 2006). For example, in the Tiquipaya Municipality (Bolivia), the drinking water supply had been managed and distributed by local the community-based water committees. The government proposed a water supply project (Macoti) but this project was initially proposed without consultation with the local the community-based water committees and other stakeholders and as a consequence conflict occurred (Faysse et al., 2007). More importantly although the Macoti project was aimed at providing treated water to the community through its sanitation network, the local community-based water committees were not satisfied because the project initially intended to take over the assets and management of the committees' infrastructure without compensation. This too led to opposition of the project: therefore a technical roundtable was set up through the MSP concept so that the conflict was minimised (Faysse et al., 2007). Well-organised stakeholder groups, less power imbalances, and strong support from the state are considered as the main factors which contribute to a successful MSP (Faysse, 2006).

It is recommended that early involvement of the stakeholders is one of the most important aspects in the process (Faysse et al., 2007; Rowe & Frewer, 2000). A better outcome can be achieved when the stakeholders are involved in the early stages of the participation process (Rowe & Frewer, 2000). Preparation of the master plan for the IJsseldelta South in the Netherlands is one such instance, where the public were involved from the beginning of the process. As a result the master plan of the IJsseldelta South was broadly accepted by the public

because input from public participation was incorporated into the draft of the master plan (Huntjens et al., 2015).

Rowe and Frewer (2000) suggest that it is necessary to involve a wide range of stakeholders who represent the affected populations in the planning and discussion process. In the case of the Mekong region water dialogues, although a diverse number of international organisations were assembled, it was later pointed out that there was a weakness, because the majority of the participants were only governmental agencies, international organisations, and consultants and that the local stakeholder groups had not been involved (Huntjens et al., 2015).

A full understanding of the information in the process is also crucial. This is reliant on the quality of language translation that is used to deliver the key messages about the available information so that individuals and stakeholders are on the same page (Hemmati, 2002a). Local language and non-jargon vocabulary for communication is required, especially if the process involves people who are not academic (Hemmati, 2002a). Language was one of the main challenges for the case of technical roundtable in Bolivia because many participants lacked an understanding of the technical aspect of the project. Therefore, they could not propose significant changes to the project's technical component (Faysse et al., 2007).

Sufficient time is key in enhancing the stakeholder's reflection and consideration about the issues before making a decision (Rowe & Frewer, 2000). Insufficient time would be an obstacle for meaningful participation. For the case of preparing a master plan for IJsseldelta South in the Netherlands, the relevant government authorities worked closely with the stakeholders through a number of approaches. These included providing information to the public (giving five scenarios of the development in the basin), creating a discussion platform (public hearing and debates), and gaining opinion (collecting a new set of development scenarios adopted by the public). During the public hearing and small group debate the public were provided sufficient time to discuss, challenge, and exchange their ideas constructively with the experts of the IJsseldelta South project. After that the master plan design session was conducted which allowed adequate time for all stakeholders to work on the new six adopted scenarios which one scenario was added after the public discussion so that they could incorporate the final version of those scenarios into the master plan.

2.4.3. Desirable outcomes of Multi-Stakeholder Process

Dore and Lebel (2010) view the MSP as an integral factor contributing to gaining public acceptance because building trust and providing opportunities for the disadvantaged groups to participate and influence the process is seen as crucial (Simon & Bruce, 2006). Once the stakeholders have acknowledged and agreed on working toward managing their resources together then they will have a sense of ownership and this may lead to framing up the most practical way to manage their resources in a more sustainable way (Warner, 2006). An example of this is the preparation of the master plan for the IJsseldelta South project, where all stakeholders, including the planners and the local farmers, worked together to develop, design, and finalise the master plan for their province. This led to the master plan being broadly accepted by the public which in turn encouraged the government to implement it with strong support from the stakeholders, including the NGO. The plan was also reviewed and a number of modifications were adopted in order to enhance the effectiveness of the plan.

Dore and Lebel (2010) believe that there are four aspects that need to be considered to achieve public acceptance. First, there is no single correct way to undertake gaining public acceptance. Managing natural resources is complicated task and is often associated with complex issues and for this reason different approaches are often required. Second, the notion that public participation is a waste of time and resource needs to be abandoned (Dore & Lebel, 2010). The experience of the Macoti project in the Tiquipaya Municipality indicated that the government and the project developer cannot take short cuts, by not recognising the effects on the local people and stakeholders, when executing a project. Through consultation and discussion with the local stakeholders, such as community-based committees, tension, and opposition to the project was reduced, because the effects of the project were identified and recognised by all stakeholders. Third, an incentive needs to be offered for effective partnerships to the organisations who implement and adopt the process into practice. Take the Mekong water dialogue as an example of improving transparency of the water governance in the region. The dialogue resulted in setting up a number of follow-up multi-stakeholder dialogues at the national and local level to explore further the relevant intervention or policies on the water development in the region. Fourth, there needs to be an openness to learning lessons with regard to good practice to others (Dore & Lebel, 2010). From the case of the Wastewater Agriculture and Sanitation for Poverty Alleviation for the cities of Kurunegala, in Sri Lanka, and Rajshahi, in Bangladesh, the MSP reflection resulted in a deeper understanding of how wastewater utilisation could have an impact on the agricultural sector and also how the use of untreated

wastewater could cause harm, not only to the local farmers, but also to the consumers of their agricultural product. This resulted in a clear understanding, which in turn lead to an improved joint monitoring plan as well as improving future wastewater management practices and the use of wastewater for agriculture in the two urban cities.

2.5. Evaluation framework

From international practice there are several aspects regarding the MSP that need to be considered. This section highlights the justifications in relation to the appropriateness of the adopted international MSP model to evaluate the effectiveness of the MSP concept applied in the case of the NT2. This section also introduces the adopted analytical questions for evaluating the effectiveness of the MSP concept that have been applied to the case study of this research. Although there are a number of frameworks in relation to MSP that have been developed, in shaping the analytical framework for my study, the concept of MSP developed by Dore (2007) was used to guide how the MSP was designed and what were the activities involved in order to ensure meaningful consultation workshops. At the same time the evaluation framework for public participation methods developed by Rowe and Frewer (2000) was considered for evaluating the level of participation in each MSP. These two frameworks were recently adopted by Huntjens et al. (2015) for evaluating the three MSPs used for the IJsseldelta South in the Rhine Basin of the Netherlands, the Mekong River basin in Lao PDR and the Ganga-Brahamputhra-Meghna river basin in India and Bangladesh. The Dore (2007) and Rowe and Frewer (2000) models are internationally recognised and this is the primary reason why I have adopted these frameworks into my case study.

The second reason is that the Dore (2007) model shares a number of critical international characteristics of MSP developed by Hemmati (2002a) (Table 2-1). For instance, i) desirable context (i.e. well intentioned, clear purposes and scope), ii) desirable process (i.e. inclusive, facilitated and communicative) and iii) desirable outcome (i.e. more understanding, workable agreements and constructive).

The third reason for using the Dore model is because of its geographical relevance: the framework of MSP developed by Dore (2007) was more focused on the Mekong region context, and therefore it is appropriate to compare the case of the NT2 of Lao PDR with this framework. Based on the Dore (2007) and Rowe and Frewer (2000) frameworks I have developed a set of simple analytical questions for evaluating the effectiveness of the MSP applied to the NT2 project (Table 2-1).

Table 2-1: Analytical questions for evaluating the case study; drawing from desirable characteristics of the MSP models by Dore (2007), Hemmati (2000) and public participation framework by Rowe & Frewer (2000)

	MSP model by Dore (2007)	MSP model by Hemmati (2002a) (For comparison)	Public participation by Rowe and Frewer (2000)	Analytical question for the case study of the NT2 project
Desirable context				
Well intentioned	Authentic desire to identify or solve the complex issues	The stakeholders involved in the MSP should fully intend to participate in the process in order to handle the issue	The participants should be involved as early as possible in the process	Why did the NT2 project involve stakeholders into its development process? When were those stakeholders involved in the process?
Clear purpose and scope	Provide clear political and practical boundaries, timeframe of the mandate, and clear justification on potential improvement on the existing governance resulted from the MSP.	Roles and responsibilities should be agreed on for implementation. Then the procedure of monitoring and evaluation of the implementation should be discussed so that the proper actions could be framed and agreed on.	Task definition for the public participants needs to be clearly defined in order to avoid confusion.	What are the roles and responsibilities of each stakeholder in the process?
Sufficient political support	Having adequate political support in encouraging or permitting the process.			Has the project activity been politically supported?

Sufficient time	Ensure that ample time will be provided to carry out the process so that stakeholders can maximise their contribution	Having sufficient time is a significant element that needs to be considered in order to prevent the various issues that could happen as a result of time limits for preparing and operating the process		Did the stakeholders have sufficient time to consider and work on the related project documents or plans offered?
Sufficient resources	Having adequate resources, including human, financial, information, and intellectual	Funding should be considered and prepared, due to the fact that there are financial requirements associated with the process, such as organisational, and administrational costs. Inputs from all stakeholders are required for effective MSP in many different parts, including stakeholder preparations, agreement on rules, and procedures and capacity building for participants	The public participants should be able to access the information in order to enhance their ability to participate in the process and the procedure of participation should be cost-effective	Does each project programme have enough budget for establishing and running it? Were all stakeholders able to access adequate information throughout the project development process? How did the project do for enhancing the effective participation of stakeholders, especially those who lacked capacity and sound knowledge in particular fields?
Appropriate levels and scales	Concerning the analysing and implementing of different levels and scales such as national, provincial, and basin	An MSP typically consists of different degrees of complexity, including issues, goals and participants due to the fact that there is no “one-size-fits-all”		How did the project carry out the consultation with the stakeholders at different levels?

Desirable Process				
Inclusive	Ensuring a various representation of stakeholders and enabling a variety of their interests	Employing MSP which allows meaningful participation from the wide range of stakeholders (representatives) to express their voices, coupled with ensuring gender equality in decision-making process is also a critical part for achieving good governance	The public participants need to represent the wide range of representatives	How were project stakeholders identified?
Facilitated	An independent party can help in maintaining the fair discussion flow and transparency of the process	Generally, professional facilitators who have a wide range of skills in relation to facilitating and encouraging meaningful discussion for MSPs should be those who have no direct interests to the decision-making process and they need to be accepted by all stakeholders		Who facilitated for the project consultation processes at different levels?
Ethical	Respecting the diversity and priorities of the stakeholders, while committing to some critical aspect such as care for life, ecological integrity, social, and economic justice and democracy	A facilitator of the MSP should be able to maintain important aspects such as commitment, encouragement, respectfulness, neutrality, cultural sensitivity, and well as being problem-solving oriented		How does the project take into account the affected peoples' concerns into project planning and design? such as concerns from the indigenous groups'

Visionary and focused	Encouraging the various options not only to address the key short-term issues, but also ensuring the long-term vision	Stakeholders need to consider various options that are to be agreed on, such as what are the common visions and strategies for achieving the visions		How the project approaches the stakeholders in order to enhance the wide range of views? How those views were turned into project plans?
Holistic	Taking an integrated or holistic view of issues identified through considering social, cultural economic, and ecological aspects, their actions and interconnectedness	Ensuring that all stakeholders agree upon substantive aspects of the process		How were all the aspects from the project's different stakeholder interests considered?
Informed	Sharing the best available information and creating a knowledge based system	An MSP should have an effective mechanism like meta-communication as a means to ensure that every step is reported meaningfully to participants. This mechanism will enable participants not only to strengthen their knowledge, but also to have a chance to discuss and suggest options and measurements to handle difficulties occurring in the process		How were the relevant project information and materials used and shared among stakeholders during the project planning and implementing phases?

Deliberative	Encouraging the contribution from all representative groups with no intermediation among the stakeholders	Independently thinking, actively participating and contributing to the groups are key functions of a participant to ensure that the thoughts and views of their group are communicated clearly	The participation process needs to be carried out without prejudice	Did all the stakeholders share and express their concerns?
Communicative	Maintaining honesty, providing trustable information to all stakeholders, including relevant state authorities and the public	The communication channel is a tool to ensure that all important messages and information will be available and accessible to the stakeholders		How did the project disclose information to the stakeholders, including the public?
Desirable outcomes				
Options assessed	Both positive and negative aspects associated with the options are to be identified			Did the project identify potential positive and negative effects clearly? And how were the mitigations and compensation packages designed?
Rights, risks, and responsibilities established	Ensuring that stakeholders' rights, risks, and responsibilities are acknowledged	Making sure that everybody has a right to express their agreement or disagreement		Were rights and risks of the stakeholders acknowledged when assessing the effects, preparing mitigations, and compensation packages of the project?

More understanding	Enhancing stakeholders' understanding toward the issues they are dealing with so that stakeholders have a shared appreciation through their joint learning process	A Multi-stakeholders approach will produce effective outcomes once all individuals are open to learn from one another		Did the stakeholders learn from one another through participation in the related project activities such as consultation workshops, capacity building programme?
Workable agreements	It depends on the mandate of the MSP for example the negotiation process for finalising the workable agreements and strategies that will be proposed to decision makers are sorted out	There are various forms of documents generated to be used as a result of discussion through including agreed minutes of the meetings and reports		What are the project compliance and agreements on restoring and developing affected peoples' livelihood?
Discursive legitimacy	Through indicating the mentioned characteristics of an MSP, it could bring about legitimacy to the process	Ensuring that the all stakeholder groups take adequate time for enhancing their creativeness and integration before making decision	The public should be able to track how the decisions are being made through a transparent procedure	Have the outcomes of the process gained discursive legitimacy?
Constructive	Enabling constructive influence for coping with the circumstances could reinforce governing systems in general	An MSP is viewed as an approach that will lead to a meaningful planning and decision-making processes by absorbing a variety of information through multi-stakeholder dialogues which aims to bring about all concerns	The output of the process should be able to influence or impact on the policy. The decision-making process needs to be structured and displayed to the public participants	How were the inputs of the stakeholders used to influence the governing and managing of the project?

2.6. Chapter summary

The WCD (2000) recommended that to ensure water is harnessed and used in a sustainable way to the benefit of all a multi-stakeholder approach be taken to discuss and address the critical issues associated with global large dam development. This has widely resulted in changes to the practices of some dam developers and international financiers such as the WB and the ADB. Not all parties are willing to follow the principles and recommendations, and as a result there are still examples of poor dam development practices since the WCD released its report in 2000. Some of the major issues are related to the weakness of gaining public acceptance, especially from local communities, and NGOs. There were several occasions where inadequate and inappropriate compensation packages together with poor implementation of livelihood development programmes occurred. This, in turn, made it challenging for disadvantaged people to adjust themselves to the new environment where they were relocated and in some instances made them poorer.

Although the concept of a MSP has been promoted as an effective tool for identifying and addressing the complex issues of natural resource management and governance, there are still some challenges regarding the ineffective establishment and application of the concept of MSP. Further exploration and building an understanding of the complex issues associated with the large-scale hydropower project is very crucial for the Lao government because it has a high hydropower development potential. This potential will be used to support the socioeconomic growth of the country and to improve the living conditions of the Lao people. If the development projects miss their main goal of improving and enhancing the affected people's livelihood, inevitably the large-scale development project would not be seen as a sustainable development project. Although there has been an increase in literature in relation to the development of the NT2 in the past decade, there is a shortage of research on understanding how the MSP concept contributes to minimising the severe effects and maximising the positive effects to the local community in each phase of the project development process. For this reason, this study analyses the processes used for stakeholder involvement in the development of the NT2 project with the objective of improving and enhancing stakeholder involvement, especially by the local communities, for future hydropower developments in Lao PDR. To this end, the analytical questions in Table 2-1 are the tool used to explore the key stakeholder's engagement as part of the MSP that has been applied in the case of NT2. The next chapter addresses the methodology that is linked to the questions.

Chapter 3: Methodology

3.1. Introduction

This chapter describes how the research was undertaken. To answer the research questions, regarding evaluation of the effectiveness of Multi-Stakeholder Process (MSP) that was applied in the NT2 hydropower project, a qualitative single case study research was used where multiple sources of information were gathered and analysed. Primary data were gained through semi-structured interviews and focus group discussions with the key stakeholders. The interviews were carried out with key informants from targeted organisations that played integral roles in the development process of the NT2 project. These interviewees were from the government agencies at all levels (ministry, provincial, and district), the power company (NTPC) and the NGOs based in Lao PDR. In addition, four focus group discussions were conducted in the affected communities. These included two upstream communities in Nakai District and another two downstream communities in Nongbok District, Khammoune province, Lao PDR. Information was also gathered from secondary sources, including journal articles, government reports, and the online database.

3.2. Research methodology

Qualitative research was applied to this study. Qualitative research is a means for gaining an in-depth understanding of the issues in the area of interest (Liamputtong, 2013). It is viewed as a tool to analyse research participants' perceptions, including their values (Hennink, Hutter, & Bailey, 2011). This leads to a deeper understanding of the concepts or models that are generally applied in the society (Grbich, 2013). Although quantitative research is more focused on measuring, counting, and quantifying the issues of interest, a qualitative research approach is used to explore and identify underlying factors and reasons behind a topic of interest (Hennink et al., 2011). Therefore, qualitative research was more suitable for this study because it aimed to explore and analyse the key attributes of process that contributed to the effectiveness of the community involvement approach applied to the NT2 project. A case study method was used to evaluate the effectiveness of the MSP in the NT2 project with particular reference to Nakai and Nongbok Districts.

Yin (2014), notes that a case study is a common qualitative research approach that has been widely applied in many fields of research, including political, business, and community planning. A case study method can also broaden the researcher's knowledge in regard to

understanding the complexity of institutional functions and management practices (Yin, 2014). Case study research can be carried out through a single or a multiple case study (Remenyi, 2012). Gerring (2007) points out that in contrast to single case studies, multiple case studies may result in a lower level of intensive examination findings. Furthermore, Yin (2014) states that case study research is more suitable for investigating and explaining a *how* or *why* question and is thus matched with the investigation of how a particular process has been implemented and adopted over time. For these reasons a single case study research design was considered to be the most applicable for this study. Aside from this, of the hydropower projects in the country, NT2 is the largest hydropower project in operation in Lao PDR so far. Also, its development effects two river basins (the Nam Theun and the Xe Bang Fai river basins), which makes it a complex trans-basin diversion project (refer to Figure 1-4). More importantly, the NT2 is generally viewed as a successful model for hydropower development project in Lao PDR with regards to involving a wide range of stakeholders, including the decision makers, developer, NGOs, and the affected communities into its development process. These factors were matched with the fundamental purpose of the research where the aim is to investigate why the NT2 was considered as a successful model and how the community engagement approach was utilised in the planning and development process of this project. The lessons that can be drawn from this case study could be beneficial for future hydropower development in Lao PDR, specifically those that use the MSP as a framework.

The following sections describe the detail of what was required before collecting data in the field collection (Section 3.3); why the data collection techniques were used, coupled with when, where, and how field data were collected (Section 3.4). Section 3.5 describes how the data gathered were treated. Section 3.6 presents the researcher's reflection from his (my) position as a technical officer of the Department of Environmental and Social Impact Assessment under the Ministry of Natural Resources and Environment to this study.

3.3. Human ethics approval

This research was approved by the University of Canterbury Human Ethics Committee on the 8th July 2016 (Appendix: A). Apart from the approval letter from the HEC, I also needed to follow a range of government protocols in relation to gaining permission from the key informants at central (ministry), province, and district levels before conducting interviews as well as permission to conduct the focus group discussions. After I received approval from the University of Canterbury Human Ethics Committee, I was able to use that letter in connection

with the official request letter signed off by the head of the my division (Division of Project Monitoring and Management) to the Director General of the Department of Environmental and Social Impact Assessment to seek permission to interview its representative. At the same time, I also needed to ask for other official letters from the Department of Environmental and Social Impact Assessment with regard to requesting to interview people from other ministries, the NGOs, and the power company.

The Division of Natural Resource and Environment of Khammoune province, which is a provincial administration agency supervised by the Ministry of Natural Resources and Environment referred to the letter from the Department of Environmental and Social Impact Assessment to back up its official letter to inform the Resettlement Management Unit, a government ad hoc committee of Khammoune province, as well as to inform the district administration bodies, namely the Natural Resource and Environment Office [9] of Nakai and Nongbok Districts. After this the official letter from the district office was granted for me to conduct focus group discussions with the targeted communities in those two districts.

As part of the human ethics procedure, all participants were provided with research information sheets (Appendix: B and C), and consent forms (Appendix: D and E). The forms were signed off prior to any interviews or focus groups session. While giving consent might be something common for the officials because of their experiences in the work environment, it was a new procedure for the affected communities in this study. Therefore, I needed to spend some time in explaining the purpose of giving consent from those participants who were unclear about the consent forms. I also explained that any participant could withdraw from the study up until the 30th September 2016, because that was when data analysis began. In order to maintain the participants' anonymity I have used code throughout the transcripts and the thesis report. The interviews and focus groups were conducted in Lao language, and I then transcribed them into English. Both interviews and focus group discussions were electronically recorded by a digital voice recorder and permission was sought from, and granted by, the participants before a voice recorder was used.

[9] Natural Resource and Environment Office is a district government agency that was merged between the District Land Management Authority and Water Resource and Environment Office when the Ministry of Natural Resources and Environment was established

3.4. Data collection techniques

In this study common qualitative data collection techniques, particularly semi-structured interviews, focus groups, and documents reviews, were used. These three methods were considered the most appropriate, both in terms of getting the required information from the targeted research participants together and also because of budget and time constraints. The data collected using these three methods were considered enough to be able to provide comprehensive information leading to gaining deep understanding of the MSP which was used in the NT2 project. The following sections describes why and how the three qualitative data collection techniques were adopted in this research.

3.4.1. Semi-structured interviews

Hay (2016) comments that interviews are very useful for exploring the opinions and experiences of the research participants because different participants can have different views on the same topic. Of the three different types of interview methods (structured, unstructured, and semi-structured interviews) the semi-structured interview method was chosen. Although a set of questions are prepared by researcher prior to the interview, this method can create room for research participants to explore in more detail the topics that they view are important during the conversation (Hay, 2016; Longhurst, 2003). In contrast, the unstructured interview is considered to be more useful for gaining information in terms of life history from the participants (Hay, 2016). A total of 10 interviews were conducted with representatives from the NT2 stakeholders, including governmental agencies, NGOs based in Lao PDR, and the power company. A set of semi-structured interview questions were developed, which drew on the analytical questions in Table 2-1 of the Chapter 2, (see Appendix: F). It is important to note that the NGOs were recruited in the interviewing list because the local NGO was one of the key stakeholders of the NT2 development process as part of the requirements of the WB and ADB's environmental and social safeguard policies, described earlier in Chapter 2. Therefore, to capture the concept of MSP it was important for the NGOs to be involved in this study, as well as the government agencies (Figure 3-1).

Through undertaking interviews with each stakeholder I wanted to gain different aspects based on their role associated with the NT2 project planning and implementation phases as follow:

i. critical aspects in relation to economic consideration by Investment Promotion Department, Ministry of Planning and Investment[10]

ii. key technical concerns on development of hydropower project by the Department of Energy Business, Ministry of Energy and Mines[11];

iii. social development and environmental protection by the Department of Environmental and Social Impact Assessment, Ministry of Natural Resources and Environment [12];

iv. implementation of the social development plan, including the resettlement action plans and the livelihood restoration programmes (upstream and downstream areas) by the Resettlement Management Unit;

v. implementation of the resettlement and livelihood development programmes in the upstream communities by the Nakai District Working Group

vi. implementation of the resettlement and downstream livelihood restoration programmes by the Nongbok District Working Group

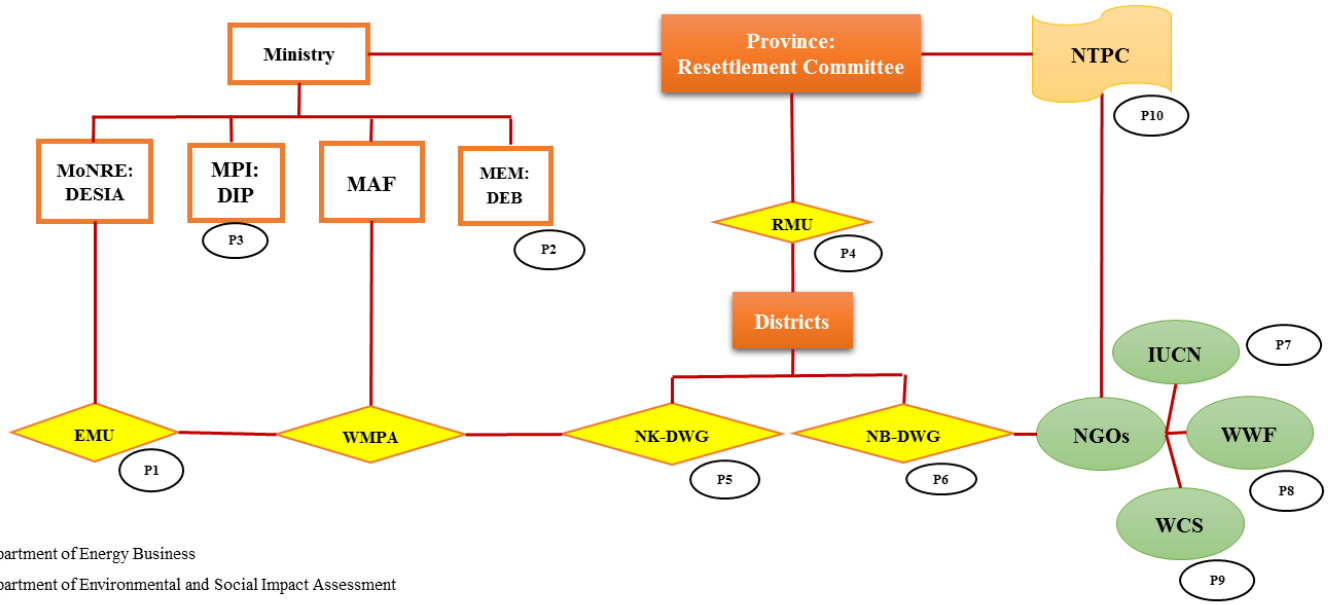
vii. involvement in development activities of the NT2 project of the NGOs based in Lao PDR, namely Wildlife Conservation Society, World Wide Fund for Nature, and International Union for Conservation of Nature, and

viii. implementation of the compensation, resettlement, and livelihood restoration programmes by the power company (NTPC)

[10] During the planning of the NT2 the Ministry of Planning and Investment was called the National Committee for Foreign Investment Management

[11] During the planning of the NT2 the Ministry of Energy and Mines was called the Ministry of Industry and Handicraft

[12] In 1999, Science, Technology and Environment Agency was the government organisation that responsible for managing the environmental aspect for the NT2. After the government organisation reform in 2007, the Water Resource and Environment Administration was responsible for the environmental aspect of investment projects in the country. Another government reform occurred in 2011, when the Ministry of Natural Resources and Environment was established for overseeing the environmental aspect for environmental aspect for the investment projects in the country up until now.



DEB	Department of Energy Business
DESIA	Department of Environmental and Social Impact Assessment
DIP	Department of Investment Promotion
EMU	Environmental Management Unit
IUCN	International Union for Conservation of Nature
MAF	Ministry of Agriculture and Forestry
MEM	Ministry of Energy and Mines
MoNRE	Ministry of Natural Resources and Environment
MPI	Ministry of Planning and Investment
NB-DWG	Nongbok District Working Group
NK-DWG	Nakai District Working Group
NTPC	Nam Theun 2 Power Company
NGOs	Non-Governmental Organisations
RMU	Resettlement Management Unit
WCS	Wildlife Conservation Society
WMPA	Watershed Management and Protection Authority
WWF	World Wide Fund for Nature

Government ad hoc committees

participants for the interviews

Figure 3-1: Institutions where the interviewees in this study belong to

The purposive selection technique was employed for recruiting all the interviewees, that is, the research participants from all targeted organisations were not randomly selected; they were those who were involved in at least one particular development process of the NT2. Table 3-1 highlights this.

Table 3-1: The key informants for the semi-structured interviews

ID code for participants	Organisation	Roles of the participant in related to the NT2
P1	DESIA, MoNRE	Responsible for supervising the Environmental Management Unit team at the central level. Also participating in the monitoring the environmental and social management plan
P2	DEB, MEM	Reviewing Feasibility Study and negotiating the Concession Agreement, power purchase agreement with the developer and other government agencies
P3	IDP, MPI	Negotiating the Concession Agreement, project development agreement, and signing these agreements with the power company on behalf of the Lao government
P4	RMU	Coordinating with the relevant government agencies and the developer and overseeing the implementation of resettlement action plan of project
P5	NK-DWG	Working as part of the District Working Group (responsible specifically for land management sector) through co-implementing the upstream livelihood restoration programme with the Resettlement Management Unit
P6	NB-DWG	Working as part of the District Working Group through co-implementing the downstream livelihood restoration programme with the Resettlement Management Unit
P7	IUCN	Being one of the special committee members working on recruiting the managerial officers for the Watershed Management and Protection Authority secretariat
P8	WWF	Being one of the special committee members working on recruiting the managerial officers for the Watershed Management and Protection Authority secretariat
P9	WCS	Implementing the elephant programme for the NT2
P10	NTPC	Implementing the project environmental and social management plan, especially the biodiversity aspect

It is important to note that, I had initially planned to interview a key informant from the Agriculture and Forestry Office of Nongbok District, which was also one of district government agencies that plays an integral role in implementation of the downstream livelihood restoration programme in relation to agricultural promotion activities; however, the proposed key informant was not available for interview. Therefore, a new key informant was recommended during the consultation with senior officials of the Administration Office and the Natural Resource and Environment Office Nongbok District. This was because the participant (coded P6) actively involved in the Nongbok-District Working Group- a district administration ad hoc committee, as a representative from the Administration Office of Nongbok District.

Also, although the two NGOs (coded P7 and P8) were interviewed, they had limited recollection of the series of consultation workshops that were conducted prior to the project getting approved. Probing more about these workshops was difficult because those involved in the consultation workshops were no longer available for interview because they already finished their contracted term with the NGOs.

Another difficulty in recruiting a research participant from each NGO was in telephone conversation with the Wildlife Conservation Society administrator, I learned that all the staff who had been involved in the NT2 development process had already left the organisation. I, therefore, asked for help from a friend, who is a project coordinator at the Wildlife Conservation Society, for contact information of these former Wildlife Conservation Society employees. Fortunately, out of three prospective participants, one of them agreed to be interviewed.

There were also some difficulties encountered in arranging face-to-face interviews. Two of the interviews (coded P9 and P10) had to be conducted by telephone because of conflicts in schedule. The former Wildlife Conservation Society staff (coded P9), at that time was living in Bolikhamsay province, which was outside the field data collection location (Khammoune province) and, in addition, he had a busy schedule. The second telephone interview was conducted with the power company staff (coded P10). This was because, at first, the power company refused to participate in the interview. According to their human resources team in Vientiane Office (in-charge of screening all documents sent to the company), they responded that there were no available staff for an interview. Upon receiving this response, I decided to make a number of telephone calls to the company and resorted to using personal networking through a friend of mine who works for the Infrastructure and Social and Environment

Remediation Fund of the power company in Nakai Office. With the support from this friend, I had a chance to provide more explanation to the power company about the importance of having their opinions and their side of the story in my research. Afterwards, I asked the power company's Human Resource staff to reconsider my request. Eventually, just a few days before I returned to New Zealand, the power company agreed to me interviewing one of their staff in who worked at the power company-Resettlement Office in Nakai District, Khammoune province. Groves as cited in Hay (2016) notes that traditionally the interview was conducted face-to-face, however, it is more common nowadays that a telephone interview is used for research. Cachia and Millward (2011) state that the telephone interview data collection method is able to provide richness of data like other methods, including the face-to-face interview. Therefore, based on this latter argument and the events that had transpired in the field, the telephone interview was considered the best method to access information and was adopted for the two cases.

Apart from those two telephone interviews, the rest of the interview sessions took place in the participant's office because this was considered to be the most convenient and comfortable place for the participants, which would mean that they could openly discuss and share their perceptions and experience in relation to their involvement in the NT2 considered.

3.4.2. Focus group methods

Focus group discussion was also used as a tool to collect primary data for this study. This qualitative data collecting approach has been widely employed in many research disciplines because it is a useful tool for exploring the underlying reasons, not only for what the respondents think and do, but also why they came up with their thoughts regarding a topic that they discuss during the sessions (Hay, 2016; Liamputtong, 2013). It is, therefore, appropriate to investigate the affected people's perspectives and how they coped with the changes on the engagement approach that they experienced with the NT2 project. In addition, the information obtained is usually valuable and it takes a short period of time to collect (Gaizauskaité, 2012) in comparison to conducting a number of individual interviews which may take days depending on the availability of the participants to be interviewed.

The focus group method is also used to group people who share similarities in terms of their backgrounds and experience (Liamputtong, 2013). In this study, focus group discussions were conducted in four different communities. For the two communities in the upstream area, focus group discussions were aimed at exploring their experiences in the implementation of

resettlement programmes of the NT2 (Figure 3-2). In contrast, focus group discussions for the other two villages located downstream looked into the people's experiences on the implementation of the downstream livelihood restoration programmes provided by the project (Figure 3-3). Establishing a focus group is not a challenge-free option (Liamputtong & Ezzy, 2005). This is because location of the discussion is a factor contributing to effective or ineffective contribution of the participants: a place that the participants are not familiar with may prevent them from feeling free to express their thoughts (Hennink et al., 2011). Thus, the focus groups in this study were conducted in the community halls of the villages of Oudomsouk (V1), Phonphanpek (V2) and Navangyai (V3) and the focus group discussion for the fourth village Phakeetou (V4) was organised at the village temple. These venues were decided by the head of the villages because they considered these places to be common places for the villagers so that they could feel more comfortable about participating in the focus group discussion. The focus group discussions were conducted at different times of the day based on the availability and suitability in each village. As a result the focus group discussions were organised during the day time for V1, V2, and V3, and the last focus group discussion, V4, took place in the evening.

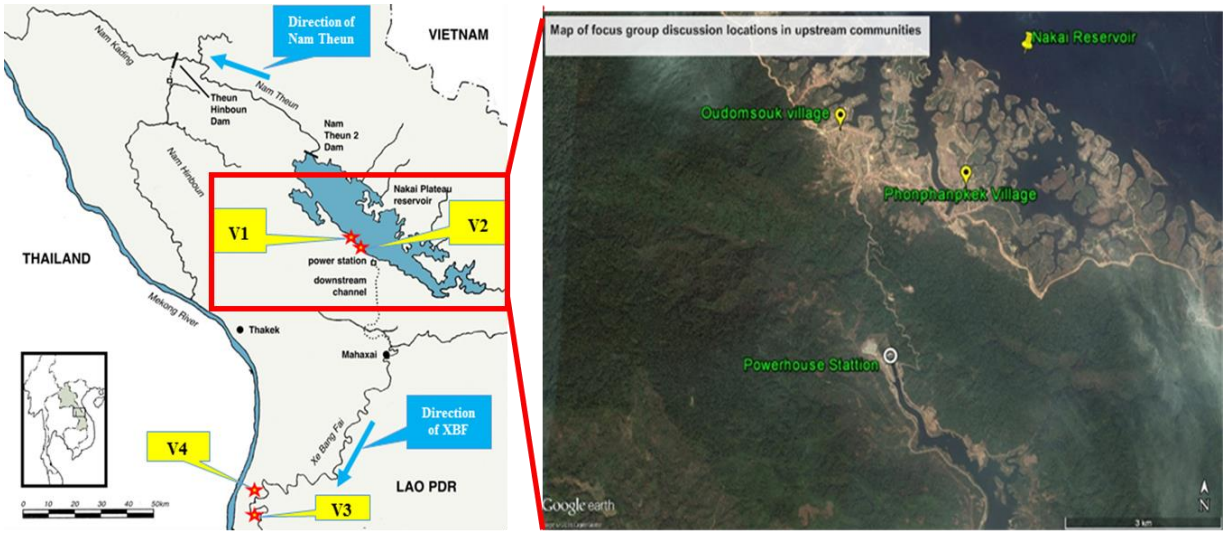


Figure 3-2: Map of focus group discussion locations in upstream communities.
Source: Adapted from International Rivers (2016) (left) and Google Earth (2016)(right)

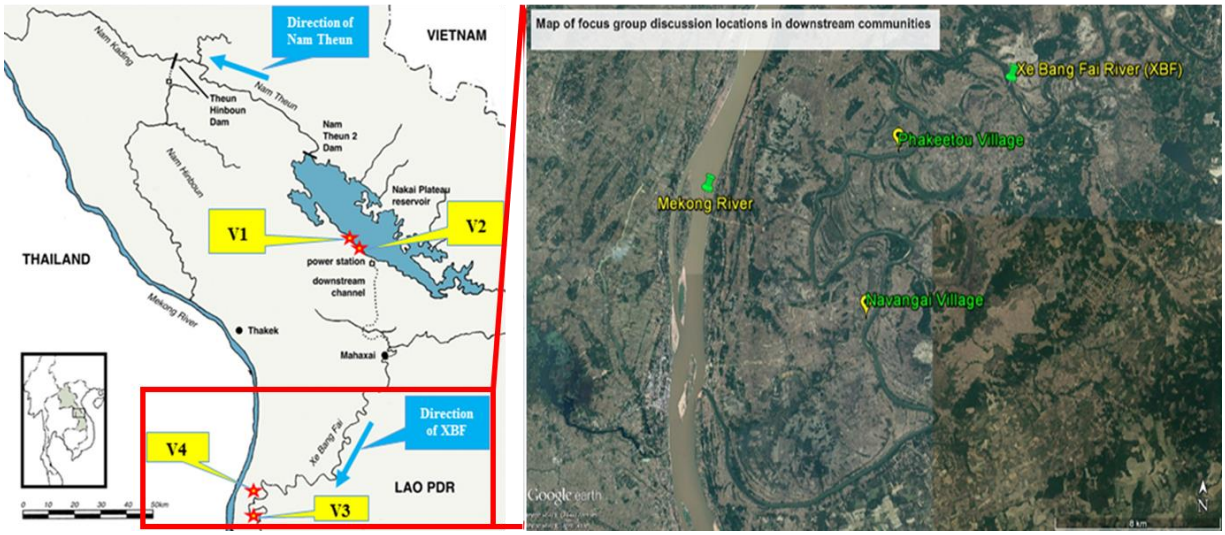


Figure 3-3: Map of focus group discussion locations in downstream communities.
Source: Adapted from International Rivers (2016) (left) and Google Earth (2016)(right)

It is important to note that local norms can either support or adversely affect the flow of doing field research, especially in developing countries (Hennink et al., 2011). This norm is expected in Lao PDR. Therefore, in this research, the gatekeeper recruitment technique was considered to be the most suitable research participant technique for this study. In Lao culture, the head of the village should be the first person to be contacted before conducting any research activities. For this reason, the heads of the villages of the target communities were consulted first. Also, the village's organisation panel like the head of the village is recognised not only as the first stage of local administration system in Lao PDR, but also has a culturally important aspect that should not be overlooked. In many places of Lao PDR, including the four affected communities for this study, the head of the village is also called *Por Ban* which literally means the *father of the village*. It was, therefore, recommended by the district officials that the most effective way to approach the participants at the community level was to ask for the head of the village to act on behalf of the researcher because the villagers would be more confident to participate in the focus groups when they were invited by the head of the village.

The number of participants for the focus group discussions in this study ranged from 6-8 depending on availability in each targeted communities. This participant number was considered as a common practice for establishing a focus group method (Liamputtong, 2013). This is because over recruitment of research participants can in turn lead to gaining unnecessary information (Lettenmaiee et al as cited in Liamputtong, 2013). The participants of each focus group were selected differently depending on the existing organisational structure of each of

the villages and the changes that were brought by NT2 in terms of relocation and livelihood development/restoration programmes. It was important that recruited participants come from the core village organisation panels (e.g. the village head, elder people, and village youth organisation, village groups, or associations). In addition, the village women's union was recruited, not only to reflect the village organisation, but also to maintain gender equity. By recruiting the representatives from these targeted groups, the information gained could be the best reflection of the village voices. Furthermore, the interaction between these representatives in the focus group discussion could reveal insightful information on how the community panels worked together in governing their community. At the same time, those recruited participants were needed to represent the wide range of effects they encountered from NT2, including the loss of farmland, fruit trees, livestock, riverbank gardens, and the change in their livelihoods. The following sections provide detailed information on how the focus group discussions participants were selected in each affected village.

Village 1 Oudomsouk

The affected people in this village (V1) were slightly different from other upstream communities. This is because there are two groups of villagers living together in this community. The first group consists of those who were required to relocate prior to the construction of the NT2, whereas the second group composed of people who were not part of the resettlement programme, that is, they were not required to be relocated, due to the inundation. Therefore, apart from the two main criteria for the participant recruitment as stated above, the participants from this village can also be described under two categories: resettled people and host villagers (Table 3-2). By recruiting the participants from these two groups I would be able capture the complexity of effects, resulting from the NT2 project on the local villagers from different angles.

Table 3-2: Summary information of focus group participants in V1

ID Code	Role of the participant in the village administration structure	Gender	Type of representativeness
V1-P1	Village head panel (1) [13]	Male	Host villager
V1-P2	Village head panel (2) [14]	Female	Resettled people
V1-P3	Village development fund panel [15]	Female	Resettled people
V1-P4	Village women union panel [16]	Female	Resettled people
V1-P5	Village forestry association panel	Male	Host villager
V1-P6	Village youth organisation panel	Male	Host villager
V1-P7	Village patriotic front panel [17] (Elder people)	Female	Host villager
V1-P8	Village fishery group panel	Male	Host villager

Village 2 Phonphanpek

Although the villagers' houses in this village (V2) were not be affected by the reservoir inundation, their upland rice paddies were flooded by the reservoir. In addition, their livestock were affected because of the loss of fodder, as this area was inundated. Therefore, conducting focus group in this village was intended to capture the villagers experience in terms of the livelihood development programme that they were eligible for participation in, including receiving irrigated land, participating in the village forestry and fishery programme provided by the NT2. In terms of participant recruitment in this village, it is important to note that, the head of the village women union and the head of the village youth organisation withdrew on the day of the focus group discussion. This was because on that same day, there were local mushrooms booming in the Nakai forest, which they then collected and sold at the local market. Even though it was aimed to have more female participants, the focus group discussion on that

[13] the participant received compensation for temporary impacted on his land during the project construction phase because his land was used for the construction temporary construction camp

[14] the participant was compensated for the loss of farmland in the Nakai reservoir area

[15] the participant was eligible for receiving new house

[16] the participant was compensated for the loss of paddy in the Nakai reservoir area

[17] the participant was compensated for the loss of land and the fruit trees in the Nakai reservoir area

day had to continue because it had been postponed once before due to there being few participants who turned up the first time around. As unexpected circumstances occur all the time, the participants who turned up told me that they could not guarantee that they would be available for participation if the focus group were to be postponed for the another time. Therefore, another woman participant was recruited (coded V2-P4) by the agreement of the other four participants (Table 3-3).

Table 3-3: Summary information of focus group participants in V2

ID Code	The village organisation where the participants belong to	Gender	Type of representativeness
V2-P1	Village head panel [18]	Male	All of the participants were eligible to for several livelihood development programmes such as livestock raising and agriculture development and reservoir fishery programmes
V2-P2	Village development fund panel (1)	Male	
V2-P3	Village development fund panel (2)	Male	
V2-P4	Village youth organisation panel [19]	Female	
V2-P5	Patriotic front panel[20] (Elder people)	Male	
V2-P6	Village fishery group panel [21]	Male	

Village 3 Navangyai

The participants recruited in this village (V3) were those who could provide useful information on the livelihood restoration programme provided by the NT2, which was fundamentally aimed at minimising the effects on the change of the downstream people's ways of life, including the impact on their fishery in the Xe Bang Fai (XBF) which is a common resource for riparian people; however, unlike the organisational structure of the first two communities, this third village does not have an official fishery group. Instead the village consists of farmer group because most of the villagers farm in this community; however, the participants acknowledged

[18] the participant moved from Bouma village (his old village) where he lost his farmland due to the inundation

[19] the participant's family was one of eligible families for receiving new house from the project

[20] the participant was compensated due to the loss of upland rice area in the Nakai reservoir area

[21] the participant was compensated due to the loss of upland rice area in the Nakai reservoir area

that they all fish in the XBF river as part of their livelihoods. Therefore, while the village's organisation panels were the fundamental targeted participants for the focus group discussion, farmers also needed to be recruited in this village (Table 3-4). Otherwise, the wide range of perspectives from different groups of villagers could not have been captured.

Table 3-4: Summary information of focus group participants in V3

ID Code	The village organisation where the participants belong to	Gender	Type of representativeness
V3-P1	Village head panel	Male	Downstream affected people
V3-P2	Village development fund and the village youth organisation panel	Male	
V3-P3	Village patriotic front panel (Elder people)	Male	
V3-P4	Village women union panel (1)	Female	
V3-P5	Village women union panel (2)	Female	
V3-P6	Village women union panel (3)	Female	
V3-P7	Village rice seed production group	Male	

Village 4 Phakeetou

This downstream village (V4) shares the same characteristics, in terms of organisational structure, as V3 also in that it does not have a village fishery group. For this reason, the participants were recruited, using in the same approach as for the V3 above. The time for organising the focus group discussion in this fourth village was different from the other three communities. It was decided by the head of the village to conduct the discussion at night time. The village head considered that most of the possible participants tended to be busy at their rice paddies during daytime. He was also not sure if there would be an urgent task with other government sectors on the day that the focus group was proposed.

Table 3-5: Summary information of focus group participants in V4

ID Code	The village organisation where the participants belong to	Gender	Type of representativeness
V4-P1	Village head panel	Male	Downstream affected people
V4-P2	Village development fund panel (1)[22]	Male	
V4-P3	Village development fund panel (2)	Male	
V4-P4	Village patriotic front panel (Elder people)	Male	
V4-P5	Village women union panel (1)	Female	
V4-P6	Village women union panel (2)	Female	
V4-P7	Village rice seed production group panel	Male	

Before starting a focus group discussion topics (Appendix: G) I clearly explained to the participants that the study was seeking for a sharing of their experiences, rather than just criticising the NT2 project. Moreover, I reiterated that their inputs would be used for incorporating and enhancing the effectiveness of the Multi-Stakeholder Process (MSP), which in turn would be beneficial for future hydropower development projects in Lao PDR.

Another important point that needs to be considered is the level of education of local community residents when delivering the questions. Therefore, during the focus group discussions the participants were treated in a friendly manner and in an informal style of discussion to make them feel relaxed. Technical terms were avoided so that the villagers would not have issues in understanding the jargon included in the discussion topic (Hennink et al., 2011).

In the V2 respondents have a lower Lao (national language) proficiency compared to the other three villages. This is because the majority of the ethnic groups in the V2 are Brou, So, and Makong (NTPC, 2005c), and these three ethnic groups have only gained access to education

[22] the villager claimed that he supposed to be categorized as a villager who should have river bank garden compensation from the project, although he did not get the compensation up till now

in the last 10 years. For this reason, more patience was needed in the discussion because some of the respondents spoke in very short sentences and kept on pausing. Although I was be able to work out the meaning of some words used by the participants to describe their experiences regarding the participation in the NT2, there were many times when I needed to clarify what they really meant. As for facilitating the focus group discussion, it was observed that some participants relied on other participants' ideas rather than their own opinions toward the given topics. In addition, while most of the women participants in the focus groups actively contributed to the discussions, there were some who did not. They tended to rely on other participants opinions, even though they were asked to not hesitate to voice their opinions.

Although there was a set of questions prepared for the focus discussions, facilitating the focus groups was not a simple task. Some participants seemed to dominate the discussion and at other times, some participants wandered to unrelated issues. In order to handle such circumstances, I had to interrupt and provide more explanation to steer them back to the original topic being discussed.

3.4.3. Document reviews

Apart from the primary data from the interviews and focus group discussion, secondary data were also collected to enrich the information regarding the NT2 development process, by extensively reviewing available documents. It is important to note, however, that the document review process encountered some constraints. These limitations are associated with the long period of planning and approval for the NT2 project – almost two decades. Government bodies have constantly restructured over that time and the document recording system of the government bodies was limited; hence, some official documents which could have been useful in this study, such as the relevant reports associated with the early process of the consultation programme and the monitoring programme of the government agencies (such as the Environmental Management Unit), have been misplaced over the years. Apart from the documents that were no longer available, material that was available on the government offices and websites, other relevant online documents from international organisations, and the power company (NTPC) websites were integrated into the document review process of this study. This included the likes of the project environment assessment and management plan, social development plans, as well as the monitoring reports of the independent monitoring teams (like Panel of Expert and International Advisory Group. The section below provides the detail

approach on how the information collected from these multiple sources were incorporated and analysed.

3.5. Data analysis

This study makes use of the data analysis spiral concept developed by Creswell (2013) for guiding the data analysis process. There are some software programs, including NVivo, which is widely used as a tool for assisting qualitative data analysis process currently. Nevertheless, as Creswell (2013) points out, a researcher is the person who plays a critical role in identifying the raw data and assigning the codes for a particular group of ideas in the qualitative research and the use of computer programs, including the NVivo and is more beneficial in dealing with a large database (Creswell, 2013). Therefore, I preferred to organise the data through the typical *Text Highlight Colour* and *cut and paste* functions in Microsoft Office Word, which I have more experience in using.

I made notes during the transcribing process and used these in combination with field observations to describe what I perceived and understood about the data. This process allowed me to familiarise myself with the gathered data. The data were initially coded by going through the transcriptions. Then the codes were reviewed and merged or grouped into categories that reflected the three main themes regarding MSP: desirable context, process, and outcomes. The themes that emerged were reviewed and combined into final themes, such as unclear compensation packages and livelihood restoration programmes. Based on these analytical processes the group of findings were compared with the available literature and presented in a combination of the text descriptions and tables.

3.6. Reflection on my positionality

Being a technical officer in the Department of Environmental and Social Impact Assessment, I had relatively smooth communication and collaboration with the targeted government agencies at all levels; however, the same cannot be said for my experience with the power company as discussed in Section 3.4.1 above. I found that personal networking was very beneficial for me in handling the difficulties in recruiting the Wildlife Conservation Society and the power company participants (coded P9 and P10 respectively). Accessing the information from these two organisations would not have been possible without my personal connection with the friends who were working in the same organisations as those participants.

In relation to collecting data with the affected communities, although I always held in mind that from a cultural appropriateness perspective I needed to contact the head of the village prior to conducting any research activities, it was not always easy for me to approach the head of the village. This is because, in most situations, I would have still been viewed as an outsider. Thus, prior to conducting the focus groups with the targeted villages, building trust with the head of the village, and the affected people, was necessary. Fortunately, I received great support from the officials in both districts. At the Nakai District, I was introduced to the two upstream community mayors by a senior official of the Natural Resources and Environment Office of Nakai District, while at the downstream communities, I was introduced by a retired district official, the former head of the Health Office of the Nongbok District, who also happens to be my father-in-law. He had been actively engaged with most of the head of the villages in the district, including the two selected communities. As a result, several thoughts were raised and discussed openly and productively by the participants during the focus group sessions. This would have not been achieved so much without the support of such senior district officials. I also found out that it was also useful to get to the venues early because it allowed me to have informal conversations on general topics with the participants. I capitalised on this extra time to introduce myself to the participants so that it allowed the participants and me to get to know each other a little bit more. This made the participants more comfortable in interacting with me during the focus group sessions because the sense of seeing me as an outsider was minimised.

3.7. Chapter summary

This study used a qualitative single case study research design to investigate the effectiveness of the community involvement in NT2 project, which is the largest hydropower development project in operation in Lao PDR. Although semi-structured interviews were conducted with representatives from government agencies, local NGOs, and the power company, focus group discussions were held to collect data from four selected communities (two upstream and two downstream) who have been affected by the development of the NT2 project. Finally, a document review was conducted to validate and complement the data collected from the semi-structured interviews and focus group discussions. All information was analysed through tabular patterns to reflect how the Multi-Stakeholder Process (MSP) was applied for identifying and addressing participants' concerns related to the case of the NT2 project.

Chapter 4: Institutions perspectives on Multi-Stakeholders Processes in the Nam Theun 2 project

4.1. Introduction

This chapter describes the findings synthesised from secondary data and the perspectives of 10 institution interviewees, who were from government agencies, NGOs, and the power company. The information reflects how the participants viewed and experienced the Multi-Stakeholder Processes (MSPs) that have been applied in developing the Nam Theun 2 (NT2) hydropower project. Section 4.2 presents the overall opinions on the development of NT2 project, showing why the NT2 project is considered to be a model for future hydropower development projects in Lao PDR. Then Section 4.3 describes the MSP approach and the management strategies that have been adopted to enhance the effectiveness of the process by the key players at management level. Moreover, Section 4.3 portrays the findings according to the three main themes of an MSP model, namely context, process and outcomes. Furthermore, in Section 4.4 the key findings regarding strengths and weaknesses of the approach are reflectively discussed with the available literature. The main purpose of this section is to introduce the possibilities factors that can lead to an improvement of future MSPs with regards to hydropower development.

4.2. Overall opinions on the NT2 project

Overall, the participants viewed the NT2 project as a good model for hydropower development in Lao PDR. The reasons behind their perceptions are three-fold. First, the NT2 project is the first large hydropower project that involved numerous stakeholder consultation workshops at different levels, from the community to international levels. There was also a diversity in the stakeholder groups, with representatives from government agencies and the NGOs that are based in Lao PDR. These were involved in each phase of the project development process. Second, the NT2 project is supported by multilateral organisations such as the WB and ADB and their environmental and social safeguard policies, for example, the policies on involuntary resettlement and indigenous people and the environmental assessment guidelines have been adopted. Therefore, the impact on social and environmental aspects were felt to have been minimised and managed. Third, the NT2 project had qualified staff and field experts who were responsible for managing and implementing the project development programmes. As well as this, the project development programmes were monitored by both internal and external

monitoring agencies, such as the Environmental Management Unit, Resettlement Management Unit, District Working Groups, and international Panel of Experts. Some participants noted, however, that there are lessons to be learned from the NT2 project and these should be incorporated in the future development of hydropower projects. For instance, the monitoring of the government agencies, such as the Environmental Management Unit, should be covered throughout the project lifespan [P1]. Moreover, the NGOs based in Lao PDR should be involved in the ongoing monitoring of the project [P7]. In doing so transparency of the project monitoring and evaluation could be maintained.

4.3. The Multi-Stakeholder Process adopted in the NT2

4.3.1. Context

The NT2 project drew much attention from the Lao government due to the complexities of the issues associated with it. Scudder, Talbot, and Whitmore (1999) note that the steering committee, which was supervised by the Deputy Prime Minister, was appointed to be responsible for overseeing the implementation of the NT2 project. Since 2007, the Minister of Energy and Mines has acted as the chair of the steering committee for the NT2 project. Based on the WB and ADB safeguard policies, the NT2 was required to undertake an Environmental Impact Assessment (EIA) process. The EIA process for the NT2 project was developed according to public consultation and the dissemination processes. The affected communities, both upstream and downstream were identified, informed, and consulted during 1995-1999. The affected people along the Xe Bang Fai (XBF) were initially informed about the impact of the project in 1997 (NTPC, 2005a). Following this, more consultation that is detailed was conducted again in 2004.

In 1996 the Resettlement Management Unit (Figure 3-1), an ad hoc committee at the provincial level, was established (Scudder, Talbot, & Whitmore, 1997a). The Resettlement Management Unit plays an important role in the ongoing process of consulting and coordinating with stakeholders, especially with the local officials at the district and provincial levels. NGOs such as the Wildlife Conservation Society and International Union for Conservation of Nature were involved in local and national consultation workshops and site visits to the NT2 project in late 2002. The aim of these site visits was to allow the stakeholders access to the project. It also provided an opportunity for the stakeholders to assess the issues and challenges associated with the NT2 project (NTPC, 2005a).

Officials noted that the NT2 project EIA process, negotiation, and consideration was lengthy, almost two decades, before it was approved by the Lao government and multilateral organisations [P3]. One official emphasised that not only internal stakeholders, but also external stakeholders were consulted to make sure that the NT2 project was internally and internationally recognised. These international public meetings were conducted in Bangkok (Thailand), Tokyo (Japan), Paris (France), and Washington DC (United States) and involved key stakeholders, including the Lao government, the power company, and NGOs (NTPC, 2005a).

> The international consultation workshops aimed to open platforms for discussion to stakeholders. For example, The NT2 project organised a consultation workshop in Bangkok (Thailand) because the project wanted to give the Thai people an opportunity to raise their concerns with regard to social and environmental impacts resulting from the NT2 project. The Thai people are considered stakeholders because they benefit from the electricity generated by the NT2 project [P2]

This brought the development of the NT2 project into the international arena, which allowed wider opportunities for stakeholders to discuss their concerns and to have their voices heard. Regarding the decision-making process of the NT2 project, the officials indicated that after the relevant local stakeholder consultation process, the technical point of views were reviewed, discussed, and finalised at ministerial level. The NT2 project was then reported to the managerial parties, that is, to the Lao government (Prime Minister's Office) and the National Assembly [P2 and P3]. Scudder and Talbot (2004) and Sacklokham et al. (2014) reported that in 2002 the proposal of developing the NT2 project was strongly supported by the National Assembly. One of the officials confirms this:

> For the government level, I was the person who gave a presentation to the Prime Minister before signing the Concession Agreement. Several times, I gave presentations to the relevant government agencies, including the National Assembly. After we finished working on the technical and legal aspects with the relevant sectors, we had several debates at the National Assembly. And at the National Assembly level we got almost the 99 % of the total vote from the National Assembly members saying that they agreed on the NT2 project to be developed [P2]

This showed that the NT2 project was supported at a political level by the Lao government, as a means for aiding the development of the country; however, one of the ministry officials stated it was not always the case that a proposed hydropower project would be approved. Some projects were rejected, especially when the project drawbacks outweighed the benefits to the Lao government and its people [P3].

In terms of guidance and monitoring for the NT2 development process, it is important to note that since 1997, the Panel of Experts has been monitoring and reviewing the relevant documents of the NT2 project. This Panel of Experts mandate will continue throughout the 25-year Concession Agreement period of the NT2 project (McDowell et al., 2015). The Panel of Experts provided independent recommendations directly to the government agencies, including the Deputy Prime Minister and Department of Energy Business under the Ministry of Energy and Mines. This is the focal point for overseeing the development of the NT2 project, the power company, and other funded organisations (Figure 4-1) (McDowell, Mann, & Talbot, 2016; McDowell, Scudder, & Talbot, 2007; Scudder et al., 1997a). Between 1997 and 2011, the International Advisory Group was another international independent panel involved with the NT2 project. They were tasked with monitoring and evaluating the involvement of the WB in supporting the NT2 project to handle environmental and social issues that arose from the project (Laking, Gerin, Racelis, & Santos-Borja, 2011; Mcdowell, Salim, Takahashi, Taylor, & Zeeuw, 1997). The International Advisory Group also provided independent recommendations directly to the WB and other stakeholders. McDowell and colleagues documented that the Lao government, the power company, the Panel of Experts, and the International Advisory Group all expected that the NT2 project would be developed as a world-class hydropower development project, which could be a model for future projects (McDowell, Scudder, & Talbot, 2006).

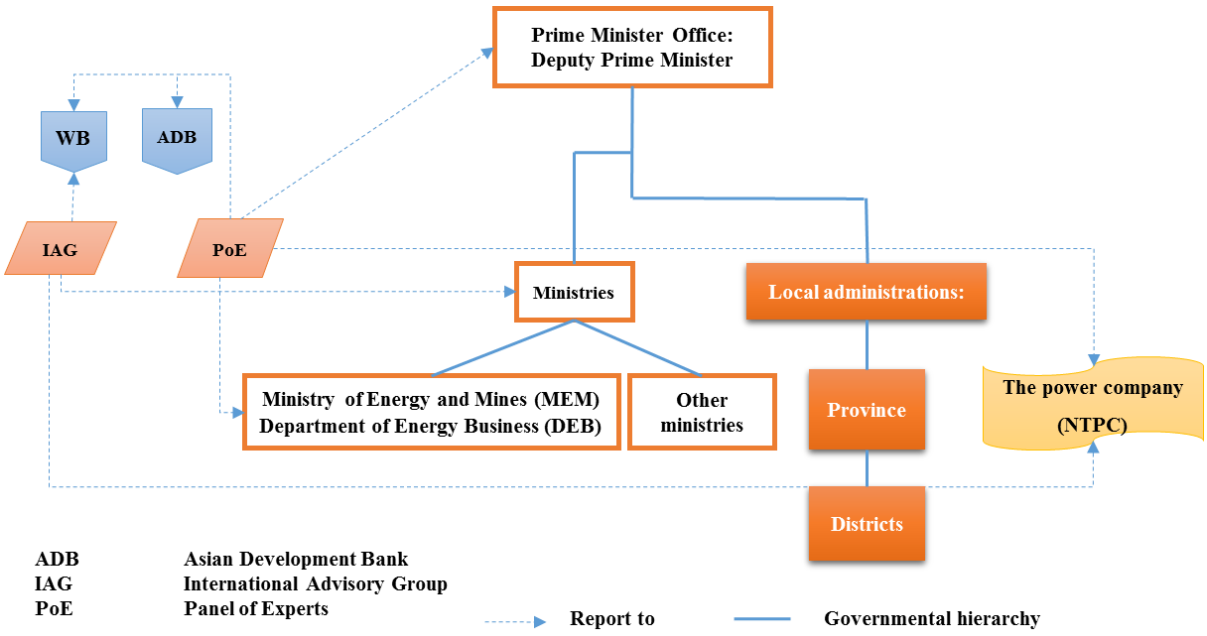


Figure 4-1: External monitoring teams inputs in the NT2 project

The next section provides the process findings of the MSPs concept that was applied to the NT2 project, including the local consultation and national workshops. This is followed by an outline of the results of how the relevant stakeholders, including the affected communities, were involved in the project development and decision-making processes.

4.3.2. Process

In relation to the EIA process, the official participants and the NTPC (2005c) reported that project stakeholders, including affected communities, were involved through three main phases of public consultation and dissemination procedures as follows:

Phase 1: Information collection and dissemination

This phase refers to the process of collecting baseline data on physical, social, and environmental aspects of the project areas. During this phase, the project features were identified, together with the projection of critical social and environmental effects within the project area. This information was then disclosed to the relevant stakeholders for further consultation in Phase 2.

Phase 2: Consultation with stakeholders

The affected people were informed and consulted with on the proposed mitigations, compensation packages, and the livelihood restoration programmes. For the affected people,

especially those who were illiterate living in the upstream (Nakai Plateau) area, a simple illustration about the project was used as a means for delivering information. For instance, Figure 4-2 shows a poster that was used to deliver general information about the project features during the community consultation workshops. Sociologists checked the language used for the posters, prior to starting any discussion to ensure it was suitable for communicating information to the indigenous people in the project area.

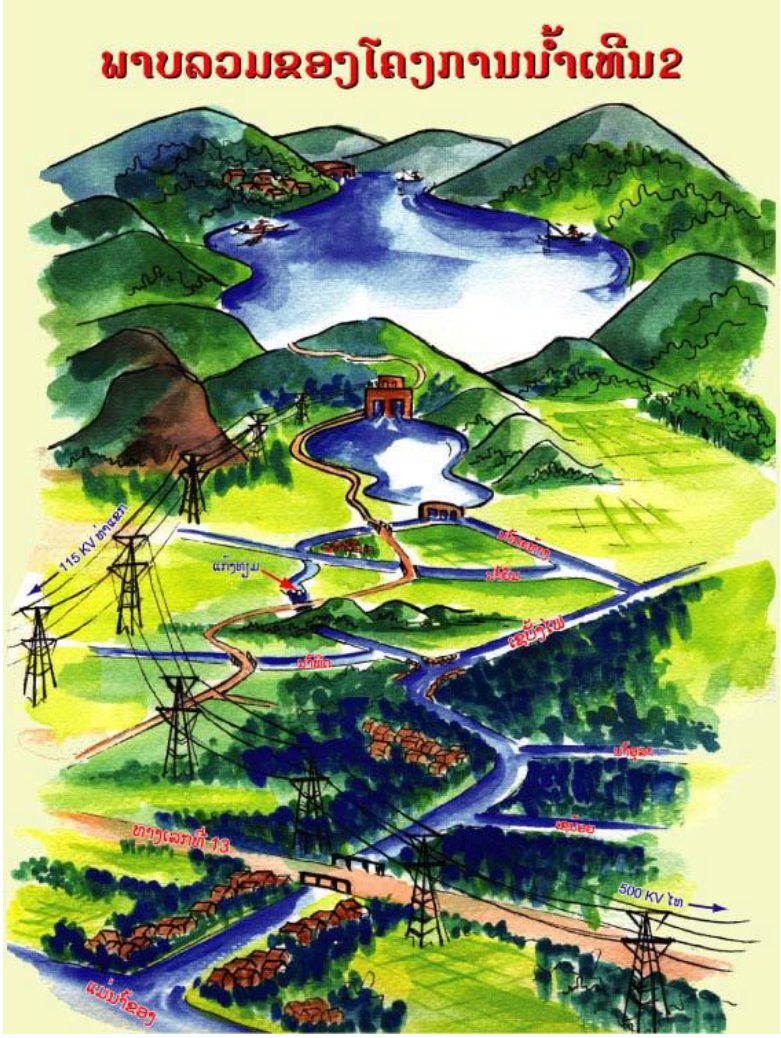


Figure 4-2: Poster showing features of the NT2 project.
Source: NTPC (2005c)

Officials state that the consideration process of the NT2 project started with a review of the technical project documents by the relevant government agencies and other stakeholders based on their expertise on specific fields, for example, the Wildlife Conservation Society, was an NGO with expertise in the field of elephant conservation in the NT2 project area [P1, P2 and P3]. Although two-thirds of the Nakai reservoir area was considered as a degraded area (Zeeuw et al., 2005), it was acknowledged that the proposed inundation of the area, as part of the NT2

project, would adversely affect the seasonal migration of wild elephants and other animals. Eight mineral salt licks that were used by these animals were also identified in the area to be flooded (Scudder & Talbot, 2005). For this reason, the Wildlife Conservation Society, with their experience in the field of wildlife conservation, were the key player in designing and implementing the elephant conservation programme for the NT2 project so that the effects on wildlife could be minimised [P2 and P9]. The Wildlife Conservation Society supervised the community and relevant local administration agencies in establishing artificial salt licks for the animals in the Nakai Num Theun National Protected Area to replace the natural salt licks that would be flooded by the Nakai reservoir [P9].

According to one of the officials, the NT2 project was the first hydropower development project in Lao PDR that fully consulted with the affected people in terms of environmental and social effects under the requirement of the WB safeguard policies [P1]. There were, for example, leading up to 2005, more than 200 consultation workshops carried out as part of the NT2 project planning process. This consultation process reflected a significant improvement in terms of transparency during the decision-making process. Prior to the NT2 project, there were some hydropower projects, such as the Theun Hinboun and Hoauy Ho, that required relocation of a number of inhabitants; however, there was no significant consultation processes with those that would be affected, as was the case for the NT2 project [P2].

During the community consultation, the affected people in the upstream area were consulted with regard to the resettlement and livelihood development programmes. One of the officials noted that the livelihood restoration options offered to the affected communities from the NT2 project included:

- Agricultural development programmes such as vegetable planting and livestock raising
- Reservoir fisheries
- Opportunity to work with the project, including hand labours
- Village forest association
- Non-farm employment such as opening restaurants and providing services to the tourists who visited the reservoir [P2].

The main aspects that were discussed, in the consultation workshops, with those who would be affected along the XBF, included the impact on the XBF in terms of:

- water level and the quality;
- the water flow;
- aquatic life and
- the affected people's livelihood (NTPC, 2005a).

After local the project document had been amended on the basis of local consultation and input, it was discussed at national consultation workshops. These were organised to allow wider input from stakeholders on the technical and social aspects that were indicated in the improved draft documents, such as the Environmental Impact Assessment (EIA), and social development plan, including the resettlement action plan. In relation to the information provided, the officials stated that key information on the project was translated into Lao and summarised for the participants of the workshops. This information was also provided to media channels such as television, radio, and newspapers, at both the local and international level (NTPC, 2005a).

The officials stated that independent facilitators were hired for the national consultation workshops to make sure that the discussion was conducted in a transparent manner. When the officials were asked about their opinions on the performance of the facilitator, they all shared their satisfaction with the professionalism demonstrated by the facilitators:

> Like what I said, the facilitators or the conveners were an independent party, they were not people from the NTPC (The power company) or from the government. We hired Thai people who lived along the Lao and Thai borders who can speak Lao fluently...I think they worked ethically [P2].

> Yes, there were facilitators. They were independent people...I would say the developer could not interfere with them. The facilitators facilitated the meeting. They allowed the topic to flow but they adhered to the time schedule, though. For example, participants had only 5 minutes to speak and the developer could not override the facilitators or influence them by telling them to allow the participants to speak for more than that. The facilitators had right to facilitate the meeting [P3].

The officials believed that, because independent convenors were used, the facilitation was conducted in an ethical way and this allowed input from a diverse range of stakeholders, including NGOs, to influence the project design and planning process. One of the officials acknowledged that without the guidance of the WB and the input from the internal and external

stakeholders, the Lao government would not have been able to develop a large-scale hydropower project like the NT2 [P3]. Officials further emphasised that international consultants were hired to provide guidance and assistance to the Lao government in all aspects regarding to the development of the NT2 project [P2 and P3]. This assistance included project planning, drafting, and negotiating legal documents, as well as overseeing the dam engineering design. One of the officials stated that through the development of the NT2 "The WB has given the Lao government fishing gear rather than a fish", because Lao PDR has numerous potential hydropower projects that could be developed in the near future [P3].

Some officials pointed out that sometimes the government agencies had a poor understanding of the characteristics of the hydropower project [P2 and P3]. For example, there was a thought that building a higher dam structure would lead to an increased capacity for irrigation of rice cultivation downstream. In fact, there are extensive factors that would require consideration; possibly the most important is the increased project cost. This in turn would lead to higher electricity prices, while the capacity of using the water from the tailrace for irrigation purposes would remain marginal. This is a very ineffective cost benefit to the investor as well as the Lao government. With this in mind a holistic approach is needed for the government stakeholders when considering, negotiating, and designing hydropower projects [P2].

Scudder and Talbot (2003) stated that the NT2 project is considered a multi-purpose project because not only does it generate electricity, but it also supplies the tailrace water to more than 20,000 ha of the irrigable land downstream in the XBF basin. One of the officials confirmed that:

> So during the dam design process we (Department of Energy Business and other government agencies like Ministry of Agriculture and Forestry) considered how to take the water that was released from the powerhouse to be used for the rice paddy fields downstream without installing any irrigation water pumps. Therefore, this influenced the irrigation canal design, including the irrigation outlet technique (Figure 4-3). So we consulted with the designers in order to make sure that we could take advantage of this tailrace water to provide additional benefit to our people, on top of the benefit that we (government) would get in the form of revenue [P2].

Figure 4-3: One of the outlets along the 27 km downstream channel of the NT2 project. Source: Adopted from McDowell, Scudder, and Talbot (2012)

Although some misunderstandings occurred in the consultation and negotiation processes, it at least illustrated that an attempt to take into account other stakeholder priorities, such as irrigation, had been incorporated into the project design. Officials added that through constructive input from stakeholders a common ground on project design was reached so that the NT2 project was developed successfully [P2 and P3].

Phase 3: Active involvement in project design and implementation

In this phase the discussions from Phase 2 were developed and implemented. The power company claimed that during this phase all feedback was considered (NTPC, 2005a). This included any environmental and social issues that had not previously been identified. The aim was to enhance the effectiveness of the mitigation and compensation packages of the NT2 project. The interview respondents said, during the community consultation, that the affected villagers were asked to identify what kind of alternative jobs they were interested in, such as establishing mushroom growing and farming groups. For instance, if affected individuals were keen to set up a group in their village, they would need to be involved in further processes, including drafting management plans, rules, and regulations to govern their groups, with the approval by the chief of the district. Once these village groups were established, technical training courses, together with internal and external study tours, were provided for the villagers to enhance their capability in implementing the alternative activities they were interested in. At the same time the villagers could also learn from existing practices in other areas [P2 and P3].

Gender equality was given high priority in the consultation process because women often had less experience in interacting with the outside world (NTPC, 2005a). For this reason, the Lao Women's Union, which is a government mass organisation, played a significant role in facilitating and encouraging the affected women to become involved in the discussion. Participants indicated that both men and women were allowed to participate in the project's activity planning and decision-making process in the villages. One of the officials stated that gender equality is one of the crucial aspects that is required under the Concession Agreement of the NT2 project. This requirement included involving women in the consultation workshops at an early stage of the project development process and including them in the organisation structure at all levels [P4].

NGO participation

The NGOs were key players in developing the NT2 project, second only to the government agencies. NGOs based in Lao PDR, such as the Wildlife Conservation Society, World Wide Fund for Nature, and International Union for Conservation of Nature were involved in some parts of the NT2 project preparation (EIA process). In addition to this three NGO representatives, who took part in this research, were those who involved in other phases of the project. One was involved as part of the elephant programme, during the construction phase (Wildlife Conservation Society). Others had been involved as committee members (International Union for Conservation of Nature and World Wide Fund for Nature) for recruiting senior managers for the Watershed Management and Protection Authority secretariat, as well as another government ad hoc committee (refer to Figure 3-1). The Watershed Management and Protection Authority received a budget of USD 1 million annually from the power company throughout the Concession Agreement period to oversee the Nakai Nam Theun watershed, including the National Protected Area.

The Nakai Num Theun National Protected Area is recognised as one of the richest biodiversity areas not only in Lao PDR, but also in Southeast Asia (Scudder et al., 1999, 2001; Zeeuw et al., 2006). Maintaining the diversity and abundance of natural forest in the Nakai Num Theun National Protected Area can also reduce the potential sediment flow due to run off into the Nakai reservoir of the NT2 project (Zeeuw et al., 2005). This in turn can maintain the lifespan of the NT2 operational capacity. In previous years, however, there had been unsatisfactory management records for the Watershed Management and Protection Authority, regarding overseeing the Nakai Num Theun National Protected Area. It was evident that the Watershed Management and Protection Authority staff had a poor understanding of the importance of

protecting the resources of the Nakai Num Theun National Protected Area. Illegal logging activities were also alleged to have operated there. These issues led to the reformation of the Watershed Management and Protection Authority. In doing so, the Panel of Expert emphasised that recruiting qualified officers was crucial to manage in an effective way and protect the Nakai Nam Theun Watershed Area and the Nakai Num Theun National Protected Area. As a result, the representatives from the NGOs were invited to be part of the selection process. One of the NGOs believed that providing an opportunity for the NGOs and other stakeholders, including academic staff, to be part of this recruiting process was a great improvement of the NT2 project over previous projects. This provided a great platform for NGOs to participate and influence the decision-making process on the Lao government's project management procedure. This kind of public participation shaped the participant's perception that the NT2 project represents the best practice hydropower development so far [P7].

Apart from the above three NGOs, who were the experts in terms of conservation, other NGOs were approached by government agencies (e.g. Resettlement Management Unit). The hope was that the targeted NGOs could continue providing support and carry out some of the NT2 programmes, such as the public health support programme in the resettlement and downstream areas, when the Resettlement Management Unit mandate ended by the end 2017. Unfortunately, the offering has not been successful so far because the targeted NGOs said the objectives and strategies of the programme offered were beyond the scope and ability of the targeted NGOs [P4].

Accessing information, communication, and follow up

In terms of communication all interviewees indicated that telephone and email were the most common means for communication and sending information. Stakeholder meetings, participants noted, were another platform where the relevant institutions could share information about the progress of the work they were involved with and provide reports. Most of the participants stated that the information was well prepared and provided to them before any meeting they attended. This allowed them sufficient time to review the information prior to the meetings. Distributed material was relevant and helpful to the discussion.

Interestingly, another NGO participant [P8] shared a different point of view of the participation by the NGOs in the selection process for the Watershed Management and Protection Authority secretariat managing officers. He stated that the NGOs were just partially involved in the recruiting process and that the participation did not take place at an early enough stage. For

example, the NGOs were not involved in designing the advertising method. In fact, the job advertisement was made available to the public through the local television, rather than the local newspapers, which P8 believed would have been a better means of accessing the right target audience (conservationists in Lao PDR). At a result of this inappropriate means of communication, the recruiting committee limited an opportunity to have qualified candidates for the Watershed Management and Protection Authority. Moreover, not all information of the candidates was shared within the members of the recruiting committee. The participant claimed that the information of the targeted candidates' qualifications was summarised by the Watershed Management and Protection Authority coordinator and this information was disseminated to committee members for identifying the shortlist candidates to be interviewed [P8].

4.3.3. Outcomes

All respondents viewed that providing opportunities for relevant stakeholders, including NGOs and affected communities, to participate in the NT2 project consultation and decision-making processes was the best practice to date for hydropower development in Lao PDR. One of the officials stated that from his experience in the NT2 project, the participatory approach is needed for hydropower development in the country so that the project is publicly accepted [P2]. The Concession Agreement is the main legal document indicating the milestones and requirements that the Lao government and the NT2 project needed to achieve. The Concession Agreement documented four main project components that were environmental and social obligations to be focused on in the project. These obligations included:

- the social component in the upstream areas (the resettlement sites)
- the environmental component, which addresses the environmental issues in the project areas
- the Nam Theun 2 Watershed Area component which deals which social and environmental issues within the watershed
- the social component in the downstream areas (NTPC, 2005e).

The following sections describe the key findings on how these project components were addressed through the MSP of the NT2 project. This is explored through three main themes, environmental management and monitoring plans; resettlement, compensation, and livelihood restoration programmes; and ongoing implementation of the MSP.

Environmental management and monitoring plans

The Panel of Experts and International Advisory Group are the two main external monitoring teams involved in shaping and providing recommendations to the NT2 project stakeholders. During the initial EIA study one of the critical effects identified for the NT2 project was reduction of the flow below the Nakai main dam (Scudder, Talbot, & Whitmore, 1998). In remedying this environmental impact all trade-off analysis options were further investigated as is documented in the EIA final draft, in 2005 (NTPC, 2005a). As a result the environmental flow rate was finalised as 2 m^3/s so that the ecological health of the river below the main dam was maintained. To ensure the power company's obligations in relation to its environmental and social management and monitoring plans, government ad hoc committees, such as Environmental Management Unit teams at district, province and central levels were set up to overseeing the implementation of the project environmental and social management plan. These ad hoc agencies worked under the technical supervision of the Ministry of Natural Resources and Environment. The Environmental Management Unit teams worked closely with the power company staff and other government stakeholders at all levels, including the Ministry of Energy and Mines and Ministry of Agriculture and Forestry (refer to Figure 3-1). Using Multi-Stakeholder Process (MSP) allowed the Environmental Management Unit team to be updated with the current progress of other stakeholders and it also allowed the Environmental Management Unit to raise any technical concern in a constructive manner. This ensured that the project schedules were met.

> I joined working with the Ministry of Agriculture and Forestry as they were responsible for salvage logging in the reservoir area. So we needed to work and plan together. This was because if the salvage logging was not finished on time, it could affect the biomass removal task which was responsible by us (Environmental Management Unit). So we needed to request and consult with them to find out what could they do to speed up their work something like that [P1].

This participant's response indicated that the stakeholders' mandates were identified so that stakeholder could work together to enhance their completion of their part of the work. To put it another way, clear roles and responsibilities were key factors contributing to the success of the project. Participants asserted that without the clear mandate, role, and responsibilities the relevant stakeholders would not be able to maintain the flow of their work. The representative of the Department of Environmental and Social Impact Assessment, however, pointed out that during the Environmental Management Unit's (central team) lifespan, an annual stakeholder

meeting was organised. This referred to the project construction phase plus the first few years after the commercial operational date in 2010 only. After this period the responsibilities for monitoring the environmental and social aspects were handed over to the district and provincial Environmental Management Unit teams. Since then the Department of Environmental and Social Impact Assessment has not being informed about the current progress of the NT2 project [P1].

It was identified in the EIA that the creation of the 450 km^2 (at full storage capacity) Nakai reservoir could affect the natural habitat of numerous wildlife, especially wild elephants. This change of animal habitat could lead to human-elephant conflict, for example, wild elephants could invade a local villager's crop garden. Therefore an Asian elephant study, including monitoring the human-elephant conflict, was recommended (Zeeuw, Gerin, Laking, Racelis, & Santos-Borja, 2007). The former staff of the Wildlife Conservation Society reported that the Wildlife Conservation Society were involved in the NT2 project as consultants to implement the elephant programme between 2008 and 2010. He asserted that the Wildlife Conservation Society team worked collaboratively with the affected communities, other government stakeholders, and the power company. For example, the NGO team provided expert opinions on the NT2 project conservation programme directly to the affected communities and local administration stakeholders so that the final decision was made with the agreement of all parties [P9].

Active involvement in project design and implementation allowed stakeholders to identify critical issues and concerns that had not been identified in Phase 2 of the public consultation and disclosure procedure. Therefore, proposed mitigation and project activities could be modified to enhance the effectiveness of such activities. A representative of the power company asserted that, apart from the Concession Agreement, the existing circumstances at the time of implementing the project activities were necessary for ensuring the effectiveness of the task. This could support the power company and relevant stakeholder to find possible ways to improve the work performance.

> Frankly speaking, there were some activities that the power company implemented beyond the Concession Agreement conditions as we considered they were necessary. Actually, the activities required for elephant programme under the Concession Agreement was just monitoring and evaluation; however, we additionally conducted the conservation campaign for the affected communities, which in fact we were not needed to do so. But we considered that the activity was beneficial and important, though...We (his team) requested to implement additional activity based on the current circumstances that we were encountering in the project site. For example, the affected people seemed to lack understanding on the conservation concept something like that [P10].

This company participant's opinion implied that the issues that were identified resulted from collaborative involvement of the power company and other stakeholders. This implication therefore helped the company to maintain its high performance in terms of MSP in developing the NT2 project in Lao PDR.

Resettlement, compensation, and livelihood restoration programmes

Resettlement Management Unit is an ad hoc government agency which was set up to oversee the social components of the NT2 project, such as resettlement in the upstream areas as well as the compensation and livelihood restoration programmes in both upstream and downstream areas. The Resettlement Management Unit works under the supervision of the Resettlement Committee with the Khammoune provincial governor as head of the committee. The Resettlement Management Unit acts as the focal point at provincial level. Its roles include facilitation of local consultation workshops, coordinating and overseeing the implementation of the livelihood development programmes of the NT2 project with the local stakeholders, including the affected communities, district, and province. The Resettlement Management Unit also plays a role in making sure that the affected communities are actively involved in all planning and decision-making process of the resettlement activities. At the same time, the Resettlement Management Unit also seeks to maximise the benefits to the affected residents through providing opportunity for them to be part of the construction activities where it was possible [P4].

> For all resettlement activities we [Resettlement Management Unit] needed the affected people to be involved, for example, the land clearing activity before building the houses. If the affected people could do something by themselves such as cutting the trees in the target resettlement sites, we then allowed them to do that task, while they could get paid for that too. This is one way of providing benefit to the affected people rather than just paying to the house building contractors only. Why we did that because we would like to embed the sense of partnership and ownership of the affected people at the very first stage of the project development process so that the affected people could have more sense of accountability for their places [P4].

This message indicates the short-term benefit that the affected peoples in the resettlement areas could capitalise on during the construction period. McDowell, Scudder, and Talbot (2008) found that the benefit that the affected people gained, in the form of wages for the project activities during the construction phase, provided significant support to the villagers to manage to purchase expensive assets, such as hand tractors and satellite receivers.

At the district level, the District Working Group was appointed as an ad hoc committee for the NT2 project. One of the district officials reported that the District Working Group consisted of relevant district agencies, such as the District Justice Office, District Agriculture and Forestry Office, and District Health Office. All these district administration bodies were working collaboratively in the compensation and livelihood restoration programmes of the NT2 project. For example, the District Justice Office is responsible for managing the district grievance committee of the elders and court. At the same time District Justice Office, in collaboration with the village grievance committee, were responsible for overseeing and handling any concerns raised by the Project Affected Person (PAP) in relation to the compensation procedure of the NT2 project (Figure 4-4).

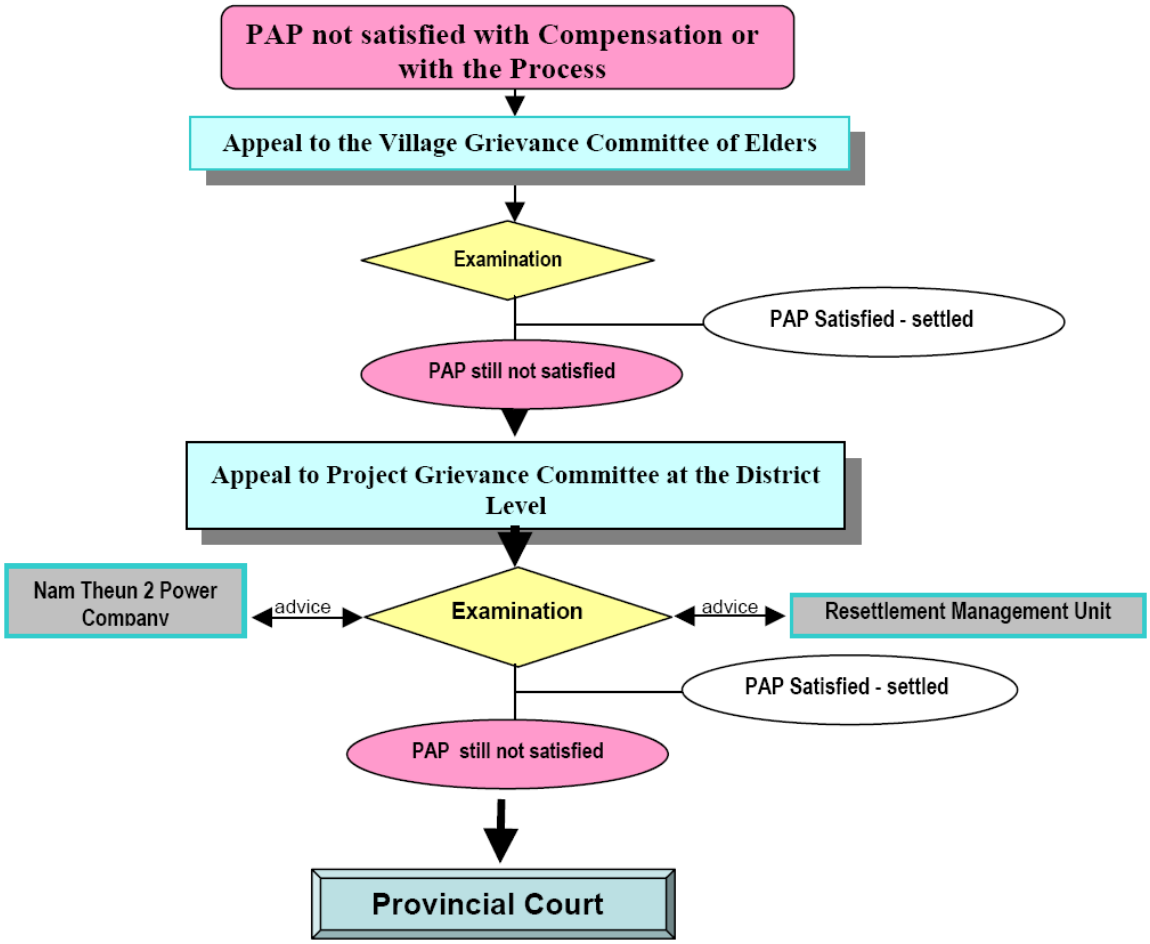


Figure 4-4: Flow chart of the grievance procedure of the NT2 project.
Source: NTPC (2005d)

The officials asserted that the constructive multi-stakeholder consultation and negotiation processes not only helped the Lao government to maximise the benefit from the NT2 project, in terms of the socioeconomics of the nation, but it also created an opportunity for improving local infrastructure in the local areas [P2, P3 and P6]. For example, the national road from the Thakhek to Gnommalat and the Mahaxay District (Figure 4-5) was incorporated into the project planning, although it was not indicated as part of the project component at the first stage [P2]. The official further emphasised that the improvement of national road network, which allowed poor people in a rural remote area like the Nakai Plateau to access the outside world, would be unlikely without the NT2 project because of resource and budget constraints [P2 and P3].

Figure 4-5: Improved road from NT2 project area to Thakhek, before (left) and after (right). Source: NTPC (n.d)

Similarly at the downstream areas one of the district officials reported that although some existing water gates infrastructure were already determined as part of the Concession Agreement's requirement, the district administration also be able to include a number of additional water gates along the XBF in Nongbok District. The power company documented that the lower XBF area is usually flooded during the wet season of the year due to the backwash effect of the Mekong River together with the flooding of XBF (NTPC,2005a). Thus, the improvement of water gates in the district significantly enhanced the district's ability to prevent local farmers' rice production from natural flood in the XBF area at least to some degree [P6]. Scudder and Talbot (2005), McDowell and Scudder (2011), and P6 stated that the water gate replacement and improvement programme that came as a result of the NT2 project opened an opportunity for relevant stakeholders to design and construct a fish ladder for fish migration between the XBF and its tributaries (Figure 4-6).

Figure 4-6: Improvement of water gates in Nongbok Districts resulted from redesign. Source: The author (2016)

Ongoing implementation of the Multi-Stakeholder Process

The participant from the power company emphasised that the stakeholder inputs have been a crucial part of the development of the NT2 project over time; however, there were some project activities that were handed over to the local administration, such as the downstream programme, while some are still funded by the power company [P10]. As an example, the power company will keep funding the work of the Resettlement Management Unit up until the end of 2017 and will fund the Watershed Management and Protection Authority for entire Concession Agreement period. Therefore, ongoing consultation between the power company and these ad hoc government agencies is expected. Apart from these programmes, the local officials stated that the affected people are still benefitting from the village development fund provided by the power company. Currently district officials, together with the village development fund panels, monitor the village development fund [P4 and P6].

When the participants were asked about the public disclosure mechanism of the NT2 project most of them identified the power company's website as a platform for distributing information about the project to the public. One of the district officials indicated that he did not know whether the information about the NT2 project was provided in the power company's website [P5]. This is one indication that not all key players have access to all the useful information, such as the Panel of Expert reports, that are available online. The Panel of Experts documented that they expected that their reports would be translated into the Lao language to ensure wider access to the public (McDowell et al., 2007). Only a few reports were translated into Lao and were made available to the public on the power company's website. In relation to providing project information on the government websites, one of the ministry officials acknowledged that there is a lack of qualified technical officers to undertake that task [P2], while another official considered that the power company's website. The rationale for this was that the public would not get confused with mismatched project information provided from different sources [P4].

Some participants viewed the fact that the NT2 project was monitored by various parties like WB, ADB, and Panel of Experts as a major factor in enhancing the effectiveness of project development programmes concerning social and environmental aspects. One of the officials strongly believed that ongoing monitoring from the relevant agency should be implemented throughout the project's lifespan. The reason for this was so that all relevant stakeholders, including the public, are fully involved and informed on the project development progress [P1].

One of the NGO participants, who believed that the NGOs based in Lao PDR should be part of such monitoring processes [P7] reinforced this.

Ongoing issues are expected throughout the project lifespan, but are sometimes not fully identified at an early stage. The most recent report of the Panel of Experts (at the time of writing this thesis) found that the affected peoples have poor understanding of the use of the community land resource in the resettlement areas (McDowell et al., 2016). They documented that the availability of suitable land for the affected people is an issue and it is associated with the general population growth in the resettlement areas (McDowell et al., 2016). This information was confirmed by one of the district officials who involved in the land management in the resettlement area that:

> Well, there are some issues that we found in relation to the land in the resettlement areas. The population in our district is increasing. But the land available here (resettlement areas) is not large, and the soil quality is also not so good…some families occupied some plots of land without permission [P5].

As a result of this, McDowell et al. (2016), recommended that before the resettlement implementation period ends in 2017, there is a need for relevant stakeholders to consider allocating additional land, where possible, to the larger households and the second generation of the resettled families. The Natural Resources and Environment Office of Nakai District and the Division of Natural Resources and Environment of Khammoune province, respectively would be responsible for this.

The lack of institutional memory is one of the critical issues of the MSP that was identified by most government official participants; however, there are different views on this issue. Although some participants considered that the ineffective institutional memory occurred within the government system only [P1 and P2], others expressed that it was an issue not only for the government and the power company side, but also for the community [P4, P5, and P10]. For the government side, the participants identified that ongoing government restructuring meant that young inexperienced officials, who were new to the project, replaced well-trained officers. Similarly, for the case of the power company, the participants pointed out that the same issue occurred when short-term contract staff or field experts were replaced [P4 and P10]. Therefore, it took time for the new project employees to be on the same page with other stakeholders. The issue of lacking well-trained staff in the power company was raised in the Panel of Experts reports (McDowell, Scudder, & Talbot, 2009, 2010b; McDowell et al., 2007).

At the community level, the loss of institutional memory arose because the community head had been replaced and this had somehow prevented the smooth functioning of the project activities in the affected communities [P10].

Participants stated that allowing more time for stakeholders to learn and understand the key issues was the most useful way to help them deal with the challenges that they were facing. When working with the affected people, more effort was needed to improve their understanding about the project objectives [P4, P9, and P10]. Similarly, capacity building was also needed for the inexperienced government stakeholders to enhance meaningful participation in the project development. For example, providing constructive feedback through on-the-job training so that young officials could keep functioning in their tasks effectively [P4].

4.4. Discussion

The views of representatives from the 10 institutions reflected that the NT2 project development addressed in a comprehensively manner the ideas of gaining public acceptance through its Multi-Stakeholder Process (MSP), as recommended by the WCD (2000). Through welcoming the WB and ADB environmental and social safeguard policies, significant improvements have been made in terms of transparency of the decision-making process for the NT2 project. The interviewees stressed that numerous stakeholder groups, such as governmental agencies, local and international NGOs, independent monitoring parties, and affected communities were informed and involved in the project. The key players from the 10 institutions showed a strong intention to participate in the development of the project to work toward the goals of the Lao government in using the potential of natural resources, in particular water, for developing hydropower projects like the NT2.

The NT2 project was seen as a driving factor for national social and economic development targets, which included the reduction of poverty. To achieve this ambition, numerous consultation processes were undertaken for the NT2 project and were strongly supported by the Lao government. At the same time, multilateral organisations like the WB and ADB have provided technical and financial support. These are factors which address the desired context that should be fulfilled as MSP characteristics (Dore, 2007; Hemmati, 2002a) (see summary in Table 4-1). Without sufficient resources, including both human and financial aspects, it would be difficult for relevant institutions to accomplish their goals; however, resourcing constraints were highlighted when the central Environmental Management Unit mandate was not appointed to cover the entire project lifespan.

It is critical to allow sufficient time for the effective preparation and identification of issues associated with the tasks that stakeholders are working on (Hemmati, 2002a; Moore et al., 2010; Rowe & Frewer, 2000; WCD, 2000). This ensures that the contributions received are from the full spectrum of stakeholders. The NT2 project took almost two decades to address the expectations and requirements of key stakeholders involved in the process. It is clear that for a large-scale hydropower development, such as the NT2 project, there are complex environmental and social issues, but that given enough time they can be identified and resolved, if all stakeholders involved work together as one.

It was evident, from the interviewees' point of view, that the consultation processes of the NT2 project were designed and conducted at all levels, including the community and national levels. Manorom et al. (2017) and Baird and Quastel (2015) state that most of the time global hydropower projects do not pay attention to the affected areas and people downstream. The affected communities, both upstream and downstream, were informed and engaged in such events. This was a critical aspect that the WCD (2000) report identified.

Table 4-1: Comparing desirable context of an MSP model developed by Dore (2007) and the MSP applied in the NT2

Dore (2007)	**Evidence in the case study of NT2 (Institutions)**	
Desirable context	**Strengths**	**Weaknesses**
Well intentioned	Institutions involved in identifying the potential social and environmental impact resulting from the project as well as designing the possible solutions to minimise the projected impact	The participation of the NGOs in the did not take place at an early enough stage for the case of recruiting process for the Watershed Management and Protection Authority secretary officers
Clear purpose and scope	Developing the water resource through hydropower project for supporting the social and economic development, including poverty reduction of the Lao people, especially the Nakai villagers	

Sufficient political support	Politically supported by the Lao government through the supervision of Deputy Prime Minister as well as the line ministries and local administrations	
Sufficient time	Took almost two decades for project planning and decision-making process	
Sufficient resources	Financial and technical supported by the WB and ADB in running the process	The budget allocated for the Environmental Management Unit to oversee the implementation of the environmental management plan of the NT2 project was limited for the construction period and after the first few years of the commercial operation date (2010) only.
Appropriate levels and scales	Undertaken consultation workshops from community to international levels	

On the managerial level, the NT2 project adopted several aspects of the MSP recommended by Dore (2007) and Hemmati (2002a) (Table 4-2). These aspects included providing platforms for the diverse stakeholders from government agencies, NGOs, international experts, and affected people to participate in the decision-making process of the project at different levels. That stakeholders, including the public, were allowed to participate and influence the decision-making process of the NT2 indicates a positive change in hydropower development practice in Lao PDR. There are some examples of poor Environmental Impact Assessment (EIA) consultation processes that excluded project stakeholders (Dore & Lebel, 2010; Lee et al., 2015; Middleton et al., 2009; Siciliano & Urban, 2016) but this was not the case for the NT2 project. By engagement with the NGOs and affected communities in an entire basin is a clear indication that there is a genuine effort to achieve an inclusive public consultation practice with a full representation of stakeholders. For instance, the Wildlife Conservation Society and other relevant government agencies were engaged in a joint planning exercise to mitigate severe impacts to the wildlife population in the project area. Huntjens et al. (2015) and Rowe and Frewer (2000) emphasised that the greater the number of stakeholder groups that are engaged in the public consultation process the more potential issues could be identified. This factor

needs to be adequately addressed in the process. Without the participation of the NGOs, who were rich in conservation experience, the effects on wild animals like elephants in the NT2 project area would be unmanageable.

These findings show that there was no question regarding the professionality of the facilitators that convened the public consultation workshops of the NT2 project. The employment of highly experienced independent facilitators was a crucial factor that encouraged fair and meaningful contributions from all stakeholder groups participating in discussion sessions (Dore, 2007; Hemmati, 2002a; Huntjens et al., 2015). It is common, in many of the rural areas of Lao PDR, that women are responsible for housework, including looking after children and collecting water from the rivers, while men are the ones who take control in decision-making. Therefore, at the community level, employing a facilitator from the Lao Women Union was an appropriate way of approaching people in remote areas, especially women, who because of local cultural traditions had less decision-making power. This was because women were also considered an important stakeholder group who needed to be consulted and included in the project development process (WCD, 2000). Modification of watersheds as a result of dam development affects all people, irrespective of gender. The notion of men as the leaders has changed since women and girls have equal opportunity for education. More and more women have been promoted to be part of the village organisation, such as the village head, in many parts of the country.

Gathering multi-stakeholders into the same platform would not help to develop a picture of the issues effectively if the stakeholders do not share a willingness to learn from one another (Warner, 2006). The findings from the interviews highlighted the approach of exchanging technical knowledge of particular aspects like dam engineering and irrigation design so that any conflicts of interest were disclosed. At the same time the findings reflected that there was an attempt to acknowledge other stakeholders' development priorities during the project planning and design, which is a desirable process characteristic of an MSP (Dore, 2007; Hemmati, 2002a).

The study also found that the NT2 project provided a wide range of livelihood restoration and compensation packages to address the effects on the communities in the project areas. At the same time, the information was made available to the public. The WCD (2000) recommended that the project information needed to be provided in a way that was understood by the affected communities. An example of good practice in community discussion of the NT2 project was the use of simple posters to deliver the key messages about the project and its programmes to

the affected people, including those who were illiterate. There was, however, an issue with the NGOs access to information in the selection process for the Watershed Management and Protection Authority secretariat managerial officers. This weakness, regarding early involvement of stakeholders, was emphasised by Rowe and Frewer (2000) and (Faysse, 2006). If the NGOs had been involved in designing the advertising method, a more qualified candidate for the Watershed Management and Protection Authority secretariat managerial officers might have been found. This is because the NGOs have more understanding of the media channels that conservationists visit.

The Resettlement Management Unit proposed that one of the NGOs take over the healthcare programme but this is likely to have been better received if the targeted NGO been part of the programmes since their inception. The NGO contribution to discussions on project visions and aims would have been beneficial. This early involvement might ensure that not only short-term goals, but also long-term goals of the programme were achieved. To enhance meaningful contributions, the provision of sufficient information is necessary to all stakeholders (Dore, 2007; Hemmati, 2002a; Rowe & Frewer, 2000; Simon & Bruce, 2006). The concern regarding the lack of transparency in the application screening process for Watershed Management and Protection Authority secretariat managerial officers would have not been raised, if all of the committee members were given all the candidates application information, including their curriculum vitae. This is so that they could nominate the person they felt was the best candidate.

The findings illustrated that there were some points that could be improved to enhance the governing system of the hydropower development projects. The institutional memory of stakeholders is still poorly developed, which reduced how smoothly the project implementation programme occurred. For instance, the new officials had limited understanding of the previous and current development process of the project. There was also a weakness in accessing useful documents, especially the monitoring reports prepared by independent international monitoring agencies, such as the Panel of Experts. These monitoring parties provided a wide range of information regarding critical issues associated with the social and environmental aspects of the NT2 project from its inception. Moreover, although the information was publicly available through the power company's website, language barriers were not considered. The monitoring reports of the Panel of Experts were produced in English which can hinder accessibility not only for the Lao speaking public, but also government officials, who do not speak English. It was evident that some key players, especially at the district level, were not even aware of the available relevant project information. Inability to access information, either through lack of

physical access or language barriers, prevents constructive stakeholder participation and contribution (Diduck et al., 2007; Dore, 2007; Hemmati, 2002a; Huntjens et al., 2015). If the stakeholders were able to access and absorb the project information, they could become actively engaged in the development process and also influence improvements to the planning and implementation of the project as whole.

Table 4-2: Comparing desirable process of an MSP model developed by Dore (2007) and the MSP applied in the NT2

Dore (2007)	**Evidence in the case study of NT2 (Institutions)**	
Desirable Process	**Strengths**	**Weaknesses**
Inclusive	Involving NGOs into the project development process during project preparation, construction, and operation	Partially involved in the recruiting process for the Watershed Management and Protection Authority secretary officers
Facilitated	Independent facilitators were hired for national consultation workshops, and local officials were engaged in community consultation level	
Ethical	Establishing the grievance procedure to oversee to complaints of the affected people	
Visionary and focused	Aiming for long-term social and economic development of the country, including the affected communities, and enhancing biodiversity protection of the Nakai Nam Theun-National Protected Area	Some NGOs, especially for the health sector, were not involved in the early stages of the health programme
Holistic	Identifying the priorities of relevant government agencies like the Ministry of Agriculture and Forestry in developing the irrigation programme apart from the main purpose of energy generation	

Informed	Providing information on the power company's website	– Poor institutional memories of all stakeholder groups – Not all information was provided to the committee members for the case of recruiting process for the Watershed Management and Protection Authority secretary officers
Deliberative	Taking into account the experts' opinions in designing the project activities such as wildlife conservation programme	the NGOs were not fully involved in the recruiting process for the Watershed Management and Protection Authority secretary officers
Communicative	Utilising simple posters for delivering the complex issues of the project to the local people	The report of the Panel of Experts is limited to wider stakeholder group, e.g. local administration agencies, due to the language barrier

From the government institutions' point of view, numerous consultation workshops on the EIA reports and other project documents as part of MSPs helped them to identify effects and mitigations of the NT2 project. It was clear that the positive and negative effects were acknowledged by stakeholders involved in the process. For example, the NT2 project was projected to affect the river flow in the downstream areas by reducing the flow of the Nam Theun (Theun River) below the main dam but increasing the flow of the Xe Bang Fai (Bang Fai River) below the powerhouse. The finding indicated that unlike the previous poor practice in hydropower development (Scodanibbio and Mañez (2005), an environmental minimum flow limit was determined, a crucial limit for maintaining the ecological health of the Nam Theun. The NT2 project considered it important to protect the health of the river downstream of the dam. This indicates an acceptance of the recommendation from the WCD (2000) to maintain the health of rivers in the basin. Environmental flow is an important ecological aspect contributing to the downstream people's livelihood who depend on the water resource (Dyson et al., 2003; WCD, 2000). Biodiversity conservation was incorporated through the Nam Theun 2 Watershed Area and the wild elephant programme from the influence of the NGOs like Wildlife Conservation Society. At the same time, infrastructure development, such as national roads in Khammounce province, can all be significant factors that benefit the affected

communities in the upstream area to access better public services and wider markets within, and outside, the Nakai Plateau. The downstream area has also benefitted from the upgraded water gate structures by preventing periodic floods in the XBF area to some degree.

The consultation and negotiation processes disclosed complex issues of the NT2 project, such as irrigation, to relevant stakeholders. This is an example of enhancing stakeholders' understanding of the factors associated with the project cost and design. As a consequence, all stakeholders were able to learn from one another (Varma et al., 2009; Warner, 2006) and join in identifying the most effective options to satisfy the wider expectations and priorities of each group (Dore, 2007; Hemmati, 2002a).

The development of the NT2 project was facilitated, implemented, and monitored widely by internal and external parties, such as the Environmental Management Unit, Resettlement Management Unit, District Working Group, Panel of Experts, and the International Advisory Group. These parties played an integral role in evaluating and providing guidance to direct the NT2 to ensure the social and environmental obligations outlined under the Concession Agreement were addressed. These key players worked collaboratively to make sure that the affected peoples' rights and risks were also adequately addressed. For example, the grievance procedure was one way of providing an opportunity for affected communities to ask for fair compensation. If the person involved in the process is fully committed to their tasks, this would be an important factor to enhancing compliance of the water development project. The community's point of view is explored in more detail in the next chapter. Similarly, the village development fund could be of long-term benefit as a financial source to provide for the affected communities to creatively use their livelihood (WCD, 2000). It is, however, important to maintain the ongoing monitoring and engagement of stakeholders, including the NGOs, throughout the project lifespan (WCD, 2000; ADB, 2003a; and WB, 2013b). The WCD (2000) emphasised that a large-scale hydropower project usually consists of complex social and environmental issues. The more different stakeholders that engage and cooperate, the more likely it is that complex issues, and potential solutions, for the project can be identified (Dore, 2007; Hemmati, 2002a; Warner, 2006).

The findings from the institutions confirm that they worked through their mandates and responsibilities regarding their expertise. At the same time, each institution can also provide input to reinforce and enhance the effectiveness of the work undertaken during the project development process. Dore (2007) and Hemmati (2002a) outlined that the desirable outcome of an effective MSP is to bring about workable agreements among institutions (Table 4-3).

Some examples of the NT2 project stakeholder participation highlighted this important aspect. These include the rights and responsibilities of the Environmental Management Unit to collaborate with the salvage logging by the Ministry of Agriculture and Forestry team, despite its short-term mandate.

Table 4-3: Comparing desirable outcomes of an MSP model developed by Dore (2007) and the MSP applied in the NT2

Dore (2007)	**Evidence in the case study of NT2 (Institutions)**	
Desirable outcomes	**Strengths**	**Weaknesses**
Options assessed	Setting environmental flow limit to minimise the impact on ecological health of the Nam Theun below the dam	Flooding of gardens in XBF area
Rights, risks, and responsibilities established	Establishing government ad hoc committees at all levels (Environmental Management Unit, Resettlement Management Unit and District Working Groups to oversee the project development process	The Environmental Management Unit and the District Working Group (downstream programme) mandate was not covered throughout the project lifespan
More understanding	The effects and costs associated with the dam design was discussed which in turn led to more understanding of institutions involved in the process	
Workable agreements	The institutions involved agreed on their mandates designed for managing the project	Some targeted NGOs approached by the Resettlement Management Unit refused to continue providing support and carry out some of the NT2 programmes (e.g. the public health support programme in the resettlement and downstream areas) when the resettlement implementation period is ended by the end 2017.

Discursive legitimacy	The key players involved in the process had their voice heard during the process	NGOs based in Lao PDR were not involved in monitoring and evaluation process with the external parties
Constructive	Feedback from the parties involved was integrated into the project planning and design	

4.5. Chapter summary

There are strengths and weaknesses regarding the Multi-Stakeholder Processes (MSPs) that have been applied in the NT2 project. The findings reflected that an attempt by the Lao government and the power company (NTPC) was made to engage with diverse stakeholder groups in the hydropower development project decision-making process, including NGOs and affected communities. The involvement of these stakeholders led to a more transparent project design and decision-making process, which addressed wider stakeholder priorities, such as irrigation development, rather than solely electricity generation. The affected communities upstream and downstream were identified and incorporated into the project planning and implementing processes. Both the negative and positive social and environmental effects, resulting from the project were also managed and monitored through internal and external parties. Overall, the participants views of the MSPs applied in the NT2 project still indicated it as best practice for hydropower development in Lao PDR so far; however, the findings of 10 institutions highlight some ineffective stakeholder engagement approaches. These included a lack of early involvement of NGOs in some programmes, ineffective means for communication to the general public and key stakeholders, as well as issues with ongoing monitoring and engagement with internal stakeholders, which is still marginal. The next chapter provides the implications of the project's provisions that have been put into the real community context both upstream and downstream. The affected peoples' perspectives and experiences reflect the performance of the project implementation and management programmes, which reflects an unfulfilled potential of community engagement in a model hydropower development project.

Chapter 5: Affected communities effects and concerns

5.1. Introduction

This chapter provides the findings obtained from document reviews together with the focus group discussions carried out with four communities (two upstream and two downstream). The chapter outlines key themes identified by the community participants, reflecting their perceptions and experiences regarding participation in the Nam Theun 2 (NT2) project's development process. The chapter begins with background of the affected communities (Section 5.2). The opinions of the participants on the development of the NT2 are presented in Section 5.3, reflecting the support from the project, which benefits them. Section 5.4 describes the participants' experiences as stakeholders with project development activities, such as community consultation workshops. The main social and environmental impact on the communities is outlined in Section 5.5. The effects that communities encountered are different due to the geographical location (upstream and downstream). This is followed by Section 5.6, which describes the involvement of the affected people in the project activities and what their concerns were about the livelihood development programmes. These include issues on compensation mechanism, mitigations, and livelihood restoration programmes. Section 5.7 discusses the strengths and weaknesses of the community involvement approach of the NT2 project, according to international practices on the Multi-Stakeholder Process (MSP) approach. The lessons drawn from the findings help to inform recommendations for what a future MSP process for hydropower project in Lao PDR could be like.

5.2. Background of the affected communities

5.2.1. Village 1 Oudomsouk

Oudomsouk village (V1) is located in the municipal area of Nakai District where the district offices are located (refer to Figure 3-2). The majority of the population are Tai Lao ethnic group (Lao Loum). Generally the Lao Loum people have more schooling and have a greater ability to adapt to the economic development regime than the minority ethnic groups (NTPC, 2005c). Within V1, there are also minority ethnic groups like Brou. The minority ethnic groups in the Nakai Plateau have a different cultural identity to the Lao Loum and are classified as indigenous people under the WB and ADB policies on indigenous people.

The livelihoods of the people in V1 are a mixture of rural and semi-urban (NTPC, 2005c). There are 653 households in V1 but only 157 households are classified as being affected by the NT2 project. These 157 households were divided into two sub-groups. The first group consists of 106 households who lost their houses and land due to the inundation of Nakai reservoir. Therefore the people in this group are eligible to receive compensation packages from the NT2 project, including new houses, new irrigated land, and participation in the livelihood restoration programmes. The second group consists of the remaining 51 households, who lost land because this is where the new houses for the resettled people were built, and therefore, the people in the second group were compensated for the loss of land, properties, and income streams, such as fruit trees and crops. The second group as well as other V1 households were not eligible to participate in livelihood restoration programmes of the NT2 project (Rural Development and Poverty Elimination Office of Nakai District, 2016b).

5.2.2. Village 2 Phonphanphek

During the data collection and resettlement processes, Phonphanpek (V2) and Nong Boua were classed as small villages because they had less than 100 households each. Under the village consolidation policy of the Lao government, small villages were merged to form larger villages (Rural Development and Poverty Elimination Office of Nakai District, 2016b). For this reason, Phonphanpek (V2) and Nong Boua villages were merged and renamed as hamlets of the new Houymalay village. In this research the study focused on V2 only because of the unavailability of Nong Boua participants at that time of collecting data. V2 is located 2 km to the east of Nakai District municipality area (refer to Figure 3-2). The majority of residents in V2 are from the minority ethnic groups like Brou, but there are also small numbers of Tai Lao and Phou Tay groups. Although there were not many households of V2 that needed to be relocated due to the inundation of the Nakai reservoir, most of the households in this community were affected by losing of their land in the reservoir area. Therefore, the V2 villagers are eligible for participating in livelihood restoration programmes of the NT2 project (NTPC, 2005c).

5.2.3. Village 3 Navangyai

Navangyai village (V3) is one of 20 affected downstream communities in the Nongbok District. Phou Tay is the major ethnic group of the V3 residents, and there are a few residents who belong to Tai Lao and Upland Tai ethnic groups (NTPC, 2005d). V3 is located in the southern part of the Nongbok District about 27 km from the municipality (refer to Figure 3-3). Similar to V2, the name Navangyai village was given when two small villages, Navangneua (north)

and Navangtai (south) were merged, based on the village consolidation policy of Lao government. The power company documented that the people of V3 were mainly rice farmers, while there were some villagers who operated small groceries shops and worked for local administrations in the district (NTPC, 2005d). Although wet rice cultivation was the predominant livelihood of the people of V3, dry season rice cultivation was also another important source of food and income for the village farmers. Other sources of food and protein for the V3 people came from growing vegetables (e.g. onion, garlic, and cabbage), fishing in the XBF, and livestock raising, such as cows, pigs, goats, and poultry (NTPC, 2005d).

5.2.4. Village 4 Phakeetou

Phakeetou village (V4) is another riparian village along the XBF and it is located about 8 km east of the municipality of Nongbok District (refer to Figure 3-3). The power company noted that V4 shared similarities with V3, in terms of not only their ethnic group, but also the livelihood of the residents. Phou Tay is a major ethnic group of V4, and only a few villagers are Tai Lao. Rice farming is dominant job of the V4 residents (NTPC, 2005d). Although the people of V3 and V4 were not required to relocate, they were all affected by the NT2 due to the modification of XBF, which is their common resource. Therefore, all residents were eligible to participate in the livelihood restoration of the NT2 project.

5.3. Overall opinion on the NT2 project

Overall the participants in the four communities considered that the NT2 project provided not only financial support, but also technical support for community development. For the upstream communities, the participants acknowledged that they were provided with improved infrastructure, such as permanent houses, all-weather access roads, access to electricity (Figure 5-1), schools (Figure 5-2) and a domestic water source (Figure 5-3). The downstream communities viewed that the NT2 project had provided them with several improvements. These included providing partial support in terms of finance for establishing a community agricultural learning centre, household toilets, and purchasing agricultural machinery for the village rice seed production groups. The participants from the four communities also acknowledged that they benefitted from access to the microfinance support through the village development fund. Furthermore, the NT2 project provided opportunities for them to participate in community consultation workshops and vocational and agricultural training courses for livelihood restoration. These courses equipped the villagers with experience in applying new techniques into their agricultural activities; however, there were some not so positive effects and concerns,

which the communities experienced during the development of the project, such as unclear compensation packages and ineffective livelihood restoration programmes.

Figure 5-1: Comparison of the Nakai villager's old house prior to the NT2 (top) with the new houses and roads after relocation process (bottom).
Source: The author (2016)

Figure 5-2: Comparison of the old school in Nakai resettlement area prior to the NT2 project (top) and new schools (bottom) provided by the project.
Source: Rural Development and Poverty Elimination Office of Nakai District (2016b) (top) and the author (bottom)

Figure 5-3: Comparison of water collecting method prior to the NT2 project (left) and new water source, deep well (right) after resettlement in Nakai Plateau.
Source: NTPC (n.d) and the author (2016) (right)

5.4. Stakeholder participation: Community and NGOs

Input from the community consultation was incorporated into the NT2 project planning and design, during the Environmental Impact Assessment (EIA) process. For instance in 1997 the early housing design was undertaken with the affected communities upstream. Input from the communities led to improvement of the final house design in 1998 (Figure 5-4). These included using wood to build the walls instead of bamboo, expanding the veranda area, and designing double roof peaked sections where it was possible (NTPC, 2005c). This new design reflected the traditional house designs of the affected people on the Nakai Plateau, which required a house consist of three zones: private (bed rooms); public (veranda), where people can interact and have meals; and a production sphere (kitchen) (NTPC, 2005c). One of the V2 male participants confirmed that during the community consultation, the villagers were also informed about the proposed public infrastructure that would be provided through the NT2 project. This infrastructure included new roads, electricity, and water supply [V2-P1]. The power company indicated that there were some concerns raised by the two affected communities upstream. In particular, there was a lack of confidence that sufficient compensation would be provided to cover the loss of assets and properties, including crop gardens and farmland. Apart from the new house design, the upstream affected people were able to exercise their rights in selection of resettlement sites where they wanted to be relocated to (NTPC, 2005c). For instance, in addition to the Nakai resettlement site, there was a resettlement site offered in lowland area of Gnommalat District; however, this option was rejected. McDowell et al. (2010b) note that a land for land compensation approach is implemented, at the same time the cash compensation is also offered based on the preference of the affected people.

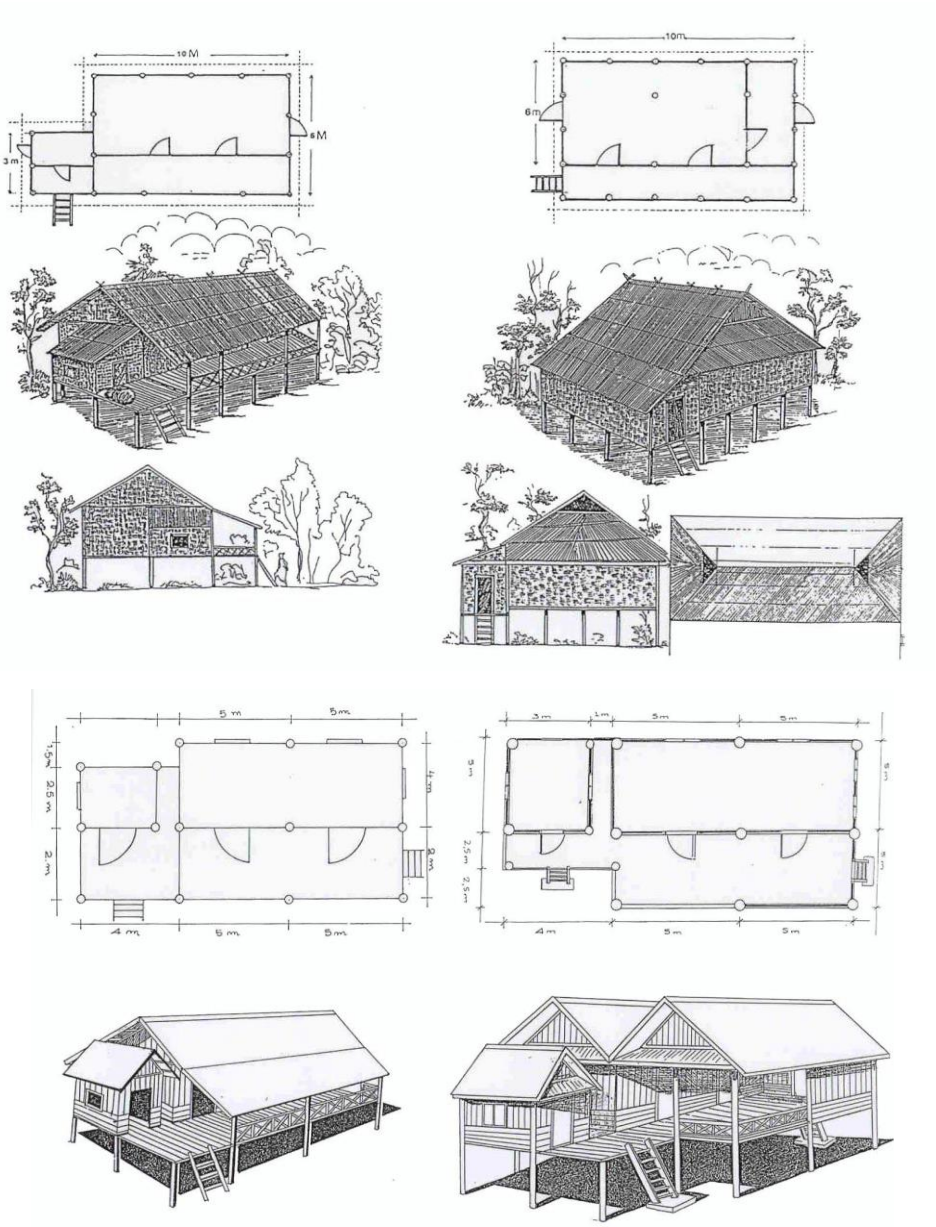


Figure 5-4: Revolution of house designs from 1997 (top) to 1998 (bottom) as a result of community input.
Source: NTPC (2005c)

In relation to the community organisation structure in Lao PDR, the head of the village is the focal point for governing. In addition to that, the village women's union, village youth organisation, and village patriotic front panel (village elder council) all play an important role in the village development activities. A woman participant from V1 stated that village women were encouraged to participate in consultation workshops together with the men in the villages [V1-P2]. The village elder council plays an integral role in maintaining village traditions, cultural practices, and unity. The village youth organisation encourages the youth of the communities to become involved in vocational training programmes, sports activities, as well

as community consultation workshops. Despite there were no available youth participants for the focus group discussion in V1, V3, and V4 in this study, the adult participants in V3 and V4 noted that although the youth in their communities attended the consultation workshops, they seemed to have no understanding about the workshops [V3-P2 and V4-P1].

During the community consultation workshops posters were used (as mentioned in Chapter 4) to deliver project information to the affected communities. Figure 5-5 was a poster used to illustrate the development process of the NT2 project in the Nakai resettlement area, and another poster (Figure 5-6) was used to explain the positive and negative effects that resulted from the NT2 project in downstream area.

Figure 5-5: Poster showing the construction phase of the NT2 project in Nakai resettlement areas which main project activities such as consultation, house, and dam construction and electricity generation were projected.
Source: NTPC (2005c)

Figure 5-6: Poster showing the positive. (e.g. expanding rice cultivation and vegetable growing)and negative effects (e.g. loss of riverbank gardens and difficulty in river fishing) in the NT2 project in downstream area
Source: NTPC (2005d)

In reading these posters, the participants acknowledged that they were able to understand the main positive and negative effects of the NT2 projects in their community to some degree. For example, the downstream communities were aware of the negative effects on the XBF in terms of water quality, and quantity, and also the difficulty of conducting river fishing in the XBF during the first few years after the commercial operation date in 2010. Even so, the V4 participants claimed that during the community consultation some key messages, such as providing support from the power company to the downstream communities, were misunderstood. As a result, some villagers missed an opportunity to take advantage from the activities.

> I would say the reason why our villagers did not ask for the support from the NT2 project was because the villagers misunderstood that the NT2 project would not help us in whatever we requested [V4-P7].

Another male participant added:

> But in fact the NT2 project provided a lot of support. So, we are feeling sorry now that the NT2 support programmes (downstream programmes) were implemented in our village just a few years. By the time we realised that the NT2 project really wanted to help us, the downstream programmes were already finished…During the time we were consulted we did not understand that the NT2 project will help us like that [V4-P2].

Although there were some form of NGO involvement as mentioned in Chapter 4, the findings at the community level reflected that NGO involvement was not acknowledged in the four communities of this study. The independent monitoring agencies, like the International Advisory Group and the Panel of Experts indicated that local and international NGOs need to be engaged in the development process of the NT2 project. This increases the possibility of achieving the concept of sustainable development in the resettlement areas and other project components (McDowell & Scudder, 2011; McDowell et al., 2012; McDowell, Scudder, & Talbot, 2013b; NTPC, 2005d; Zeeuw et al., 2006). When the participants from the four communities were asked about their experiences in working with parties involved in the NT2 project development programmes, all the participants responded that they had no experience working with the NGOs. The participants stated that they attended numerous workshops in their communities with different parties, including the district and provincial government agencies and the WB [V4-P2]. What the V3 and V4 participants noticed was that there were some foreigners who attended the workshops at their communities. Figure 5-8 and Figure 5-8 indicate the interaction of the communities with the local administration and the power company during and after the community consultation workshops.

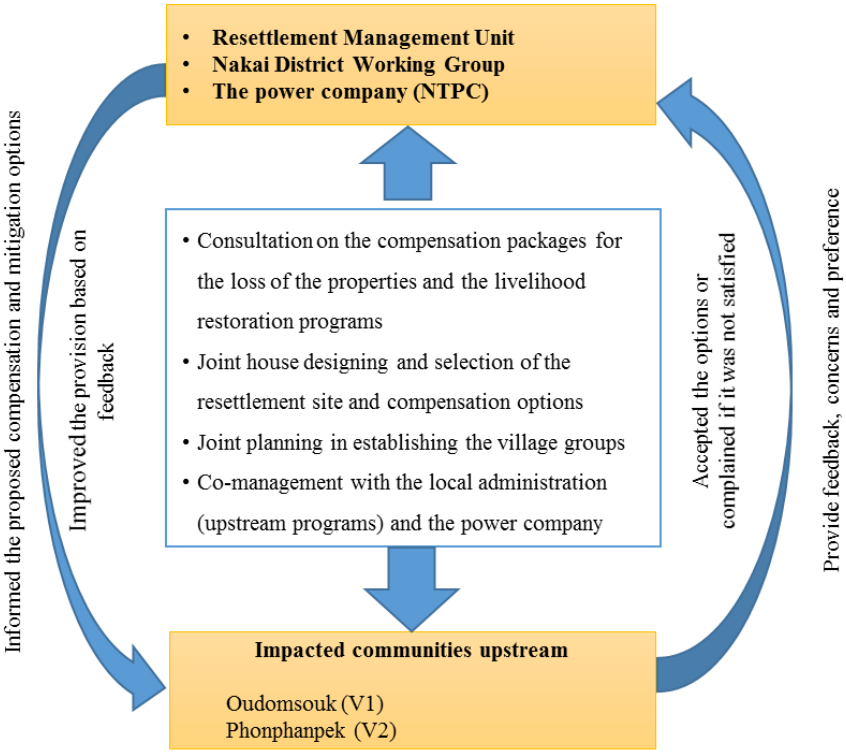


Figure 5-7: Interaction of the affected communities (upstream) and the local administration and the power company during and after community consultation workshops
Source: The author (2017)

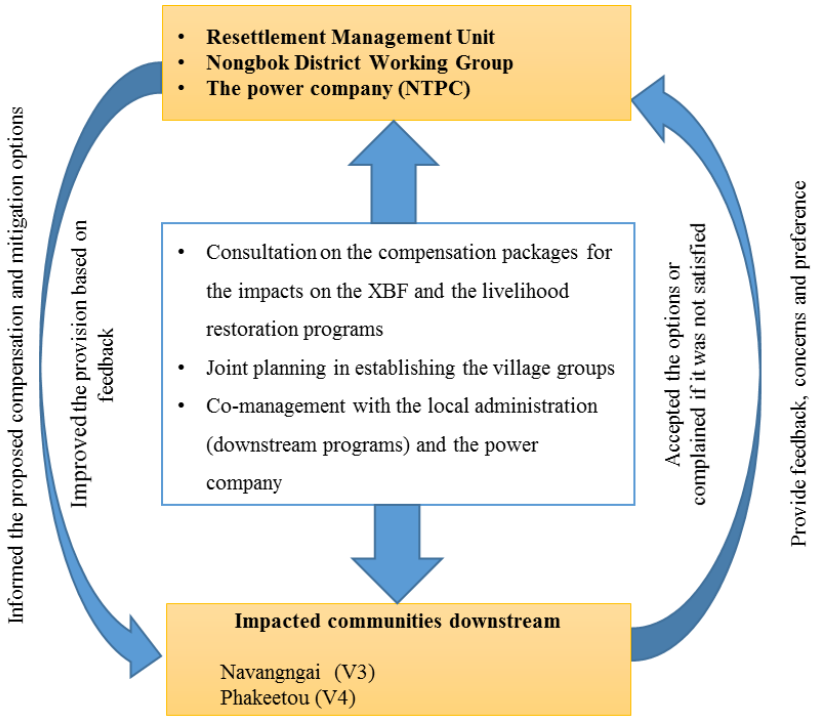


Figure 5-8: Interaction of the affected communities (downstream) and the local administration and the power company during and after community consultation workshops.
Source: The author (2017)

5.5. Social and environmental impact

5.5.1. Upstream communities

Inadequate land: The power company indicated that under the resettlement packages, each affected household would be compensated with a total land area of 0.66 ha. Within this area of land 0.5 is irrigated farm land that could be developed for vegetable planting, wet rice farming, and fodder growing and another 0.16 ha of irrigated rice paddy (NTPC, 2005c). The V2 participants viewed that the provided land is not enough for them to produce sufficient rice for their family, especially the large extended families. The participants claimed that having enough paddies area would be one of the fundamental factors supporting their livelihood development [V2-P1, V2-P5, and V2-P6].

Adjusting to the new development: One of the female respondents pointed out that although the community infrastructure development after relocation process was good, many affected people were still suffering through their inability to adapt to the modern lifestyle. Quality of soil in the resettlement area was generally poor which led to low rice yield [V1-P3]. Therefore, the income from reservoir fisheries needed to be used for purchasing rice. Consequently, the people did not have sufficient money to invest in family businesses, although the affected people, including the youth were provided vocational and agricultural training through the livelihood restoration programmes [V1-P3 and V1-P6]. Another female participant pointed out that although there were some rich people in the village, they are not the local villagers who lived in the village prior to the NT2 project [V1-P1].

Livestock raising: The Nakai reservoir occupies 450 km^2 when it reaches full capacity. The presence of this large reservoir leads to a reduction in the natural grassed areas used by livestock. As a result some buffalos and cows died due to starvation [V1-P1]. McDowell et al. (2008) documented that disease was also another factor contributing to the death of large livestock like cows and buffalos. Consequently some V1 households do not raise cows and buffalos anymore [V1-P1]. McDowell et al. (2009) pointed out that in some cases the livestock were sold, although the selling price was very low. McDowell et al. (2007) recommended that the drawdown zones (Figure 5-9) be reallocated for the affected households to do sylvo-pastoral activities. The allocation of drawdown land complies with the customary agricultural right of the affected people to use the reservoir under the Concession Agreement provision (McDowell et al., 2007). Therefore, a fodder planting programme was introduced in the resettlement communities; however, one of the V1 male respondents claimed that only a few

families joined the drawdown grazing programme because they viewed that the programme was unsuccessful due to the inadequate irrigation system. This land issue is connected to the presence of the second generation of the resettled people [V1-P5].

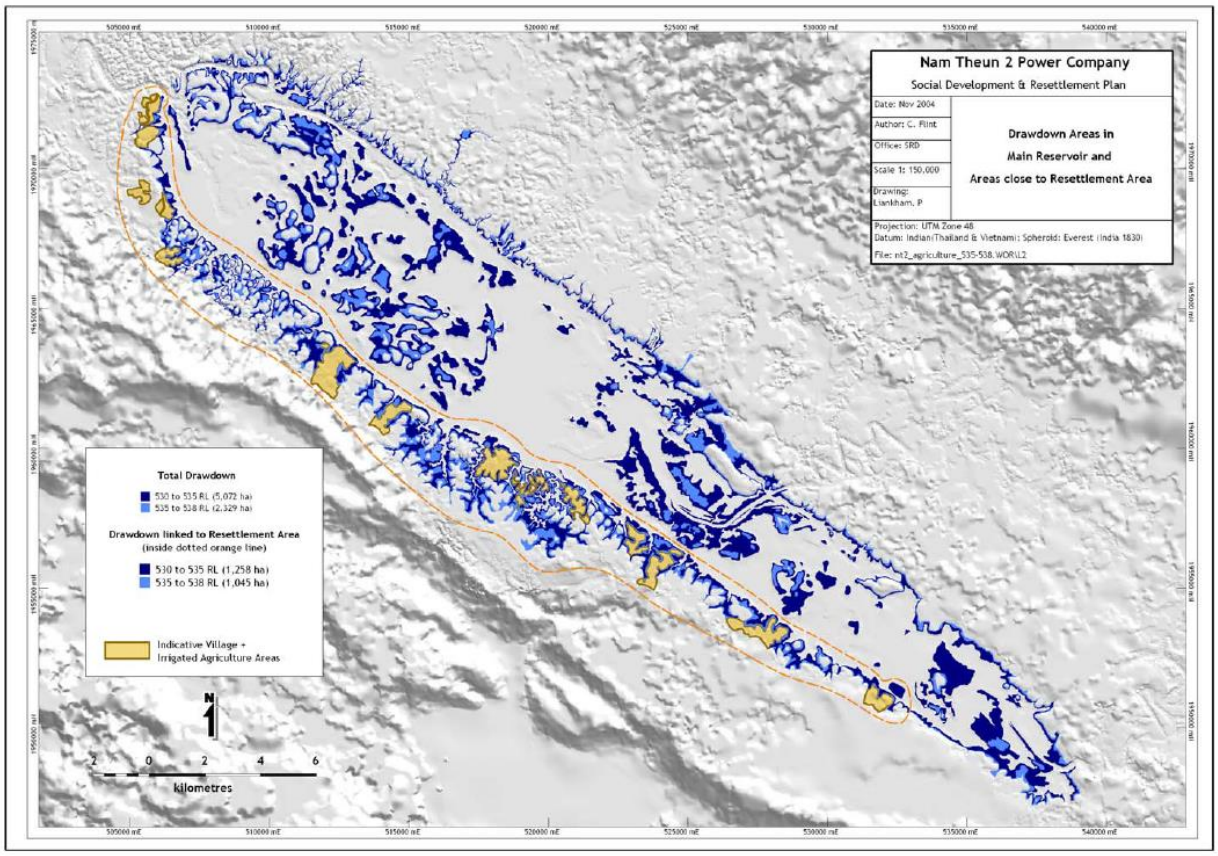


Figure 5-9: Drawdown areas in main reservoir and area close to the resettlement sites. Source: NTPC (2005c)

Benefit sharing: The V1 participants believed that there should not be separated or categorised groups of affected persons among the villagers in the community. Because of the village's administrative tasks were not separated, therefore everyone in the community should have the same opportunity to benefit from the project no matter they were relocated or not [V1-P5 and V1-P8].

5.5.2. Downstream communities

The main effects of the NT2 project on the downstream communities related to modification of the Xe Bang Fai (XBF). This is because the water from the Nakai reservoir in the Nakai Plateau area is discharged through the powerhouse station located in the lowland area near Gnommalat District. The tailrace water then flows through a purpose-built 27 km channel to discharge into the XBF (refer to Figure 1-4). The participants in the two downstream

communities interviewed acknowledged that the following projected effects of the NT2 project on the social and environmental aspects of their communities occurred as per predicted during the community consultation [V3-P1 and V4-P1]. These include the effects on:

- XBF water quality and quantity
- River fisheries and riverbank gardens
- XBF's bank erosion

XBF water quality and quantity: The schedule of electricity generation of the NT2 project is based on the demand for electricity in Thailand. Therefore dependency on the electricity demand from Thailand consumers, the water from the reservoir is discharged mostly between Monday and Saturday. This leads to weekly and seasonal fluctuations of the XBF water levels. This modification of water level has had effects on land use along the XBF banks, such as loss of riverbank gardens. This is because in the dry season the XBF water level could increase 5 m Monday to Saturday (Figure 5-10) but only 1.8 m on Sunday (Figure 5-11) when compared to its height prior to the NT2 project. In the wet season the XBF water level is usually high due to the natural heavy rains that fall. The water level is expected to increase about 1.3 m during Monday to Saturday (Figure 5-12) and about 1 - 3.5 m for Sunday (Figure 5-13) (NTPC, 2005d).

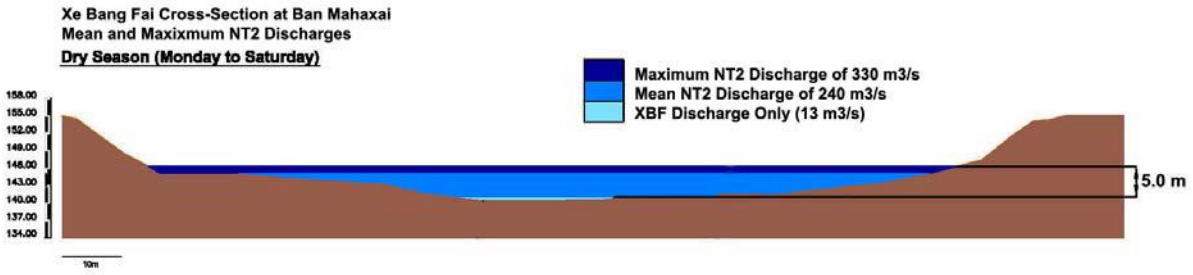


Figure 5-10: The scenario for water level change in the Xe Bang Fai during the high electricity demand days of the dry season.
Source: NTPC (2005d)

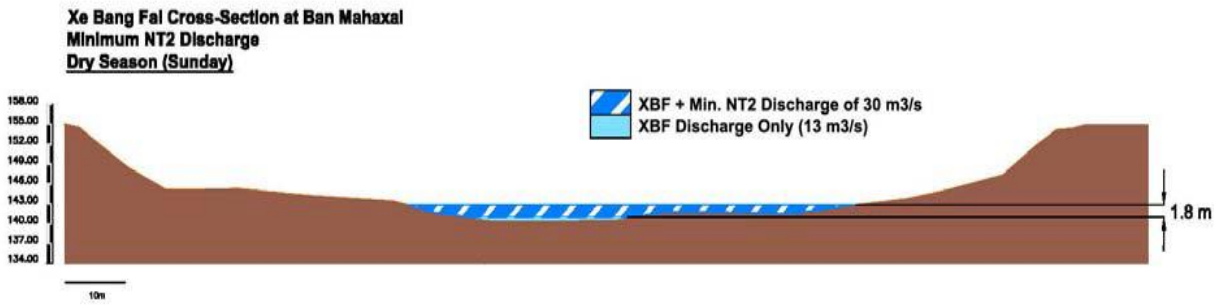


Figure 5-11: The scenario for water level change in the Xe Bang Fai during low electricity demand on Sunday of the dry season.
Source: NTPC (2005d)

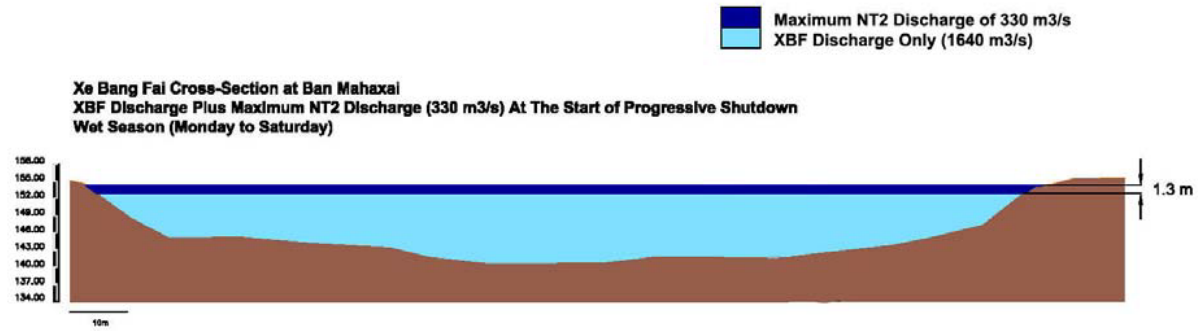


Figure 5-12: The scenario for water level change in the Xe Bang Fai during high electricity demand days of wet season.
Source: NTPC (2005d)

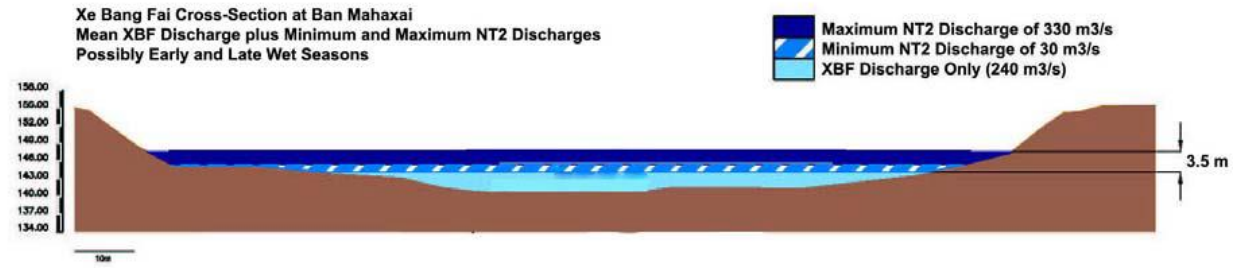


Figure 5-13: The scenario for water level change in the Xe Bang Fai during low electricity demand on Sunday of the wet season.
Source: NTPC (2005d)

Some participants acknowledged that the water quality of the XBF now is getting better in comparison with the first few years after the commercial operation date (2010). During that time the water colour of XBF apparently turned to dark green and had a terrible smell due to the vegetation that was flooded in the Nakai reservoir [V3-P2, V4-P1 and V4-P3].

River fisheries and riverbank gardens issues: The change in XBF water level is the main concern of the riparian people of XBF in a number of ways. These include declining fish numbers in the XBF and loss of access to riverbank gardens. The V4 participants acknowledged that they were all aware of the difficulties for river fishing, especially for the first four years of the operation phase [V4-P1 and V4-P3], and thus downstream villagers could not go fishing during this time. The WB and ADB (2013) acknowledged that although fish monitoring along the XBF undertaken by the power company indicated an increase of fish caught this was still lower than the fish record prior to when electricity generation began in 2010. The V3 participants confirmed this and although the villagers can go fishing, the number of fish caught was lower than what they used to catch prior to the NT2 project [V3-P1 and V3-P2].

XBF's bank erosion: Due to the water discharge from the NT2 project, cultural sites, such as Buddhist temples along the bank of the XBF were identified as being prone to riverbank erosion (NTPC, 2005d). For this reason, riverbank protection was one of the mitigation measures to protect the Buddhist temples in the affected areas (NTPC, 2005d). The International Advisory Group team also acknowledged that special attention should be placed on mitigating the potential risk in terms of riverbank erosion that could affect a 2000-year-old Buddhist stupa (Tumpavang stupa), in Tumpavang temple of V3 (Zeeuw et al., 2006). This is in line with the claim that although the residents of V3 were told in the community consultation workshops that the riverbank protection would be constructed for their temple, this has not yet happened (Figure 5-14). This led to disappointment in the project [V4-P1, V3-P2, V3-P5, V3-P6, and V3-P7]. As one of the female participants said:

> Only one thing that cannot be solved is about the riverbank protection for our temple. Although we all (villagers) heard that we would surely get it....this temple is a tourist site not only for the Nongbok District, but also for the Khammoune province....but the downstream programme was already finished, so that was the only point that we did not get from the NT2 project [V3-P6].

Figure 5-14: Riverbank at Tumpavung temple in V3 where the embankment protection was verbally agreed to be constructed between the V3 and the power company (left) and a 2000 year Tumpavang stupa (right).
Source: The author, 2016

5.6. Community concerns

5.6.1. Unclear compensation packages

The International Advisory Group team highlighted that there was confusion in relation to the compensation to affected villagers for losses such as land in the NT2 project areas (Zeeuw et al., 2006). The four communities interviewed reiterated this in relation to compensation issues on fruit trees, loss of livestock, agricultural land, and riverbank gardens. The power company indicated that for the loss of fruit trees, the affected people would be compensated with cash and the amount of compensation would depend on the type, age, and productivity of the trees:

(a) If the affected trees are young and have not started bearing fruits, a lump-sum amount to cover for the maintenance and rearing of trees.

(b) In case the tree has already started bearing fruits, the annual productive value should be determined, and the compensation equivalent to five years of annual production value (NTPC, 2005a, p.15).

This is not the information as delivered to the affected individuals. As one of the participants said:

> The NT2 project staff who gave the information on the compensation procedure said that the affected people would be compensated for the loss of both land and plants....Even though the affected people do not have fruit trees for 7 years, we will be covered by the compensation in the form of money….The project gave affected people hope. In fact we (the affected people) were not compensated for the loss of crops....I was told that for the loss of my land and fruit trees I would be paid approximately 40 million kips [about USD5000 now]…So I was satisfied with that estimated amount of money at that time...But I did not get that amount of money though… So I complained for three times about such issue, eventually I received only 5,800,000 kips [around USD 725] [V1-P7].

A representative of village head panel of V2 claimed that he was not being compensated for the loss of his paddy in his old village (Boua Ma) because he had no land title for his paddy [V2-P5]. He further explained that he was told by one of the resettlement team members that apart from having the land title, the NT2 project could also compensate for the loss of paddies that had some evidence showing that the paddies had been used for rice farming.

> So how can we have the straw on our rice paddies? Because we did not move immediately when the water came, but we left our village about three years before our paddies were flooded, therefore we did not do any planting activities there during that time [V2-P1].

There were three types of garden identified during the social economic survey in 2004 which included i) the garden above the river bank, ii) river crop fields, and iii) river vegetable garden (Figure 5-15) (NTPC, 2005d). While type (i) was not considered to be affected by the increase of the XBF water level, both type (ii) and (iii) were considered to be affected. Type (i) gardens were not supposed to be considered as a river bank garden (which would be eligible for compensation) but there were some cases that the type (i) gardens were mistakenly recorded as river bank gardens (NTPC, 2005d).

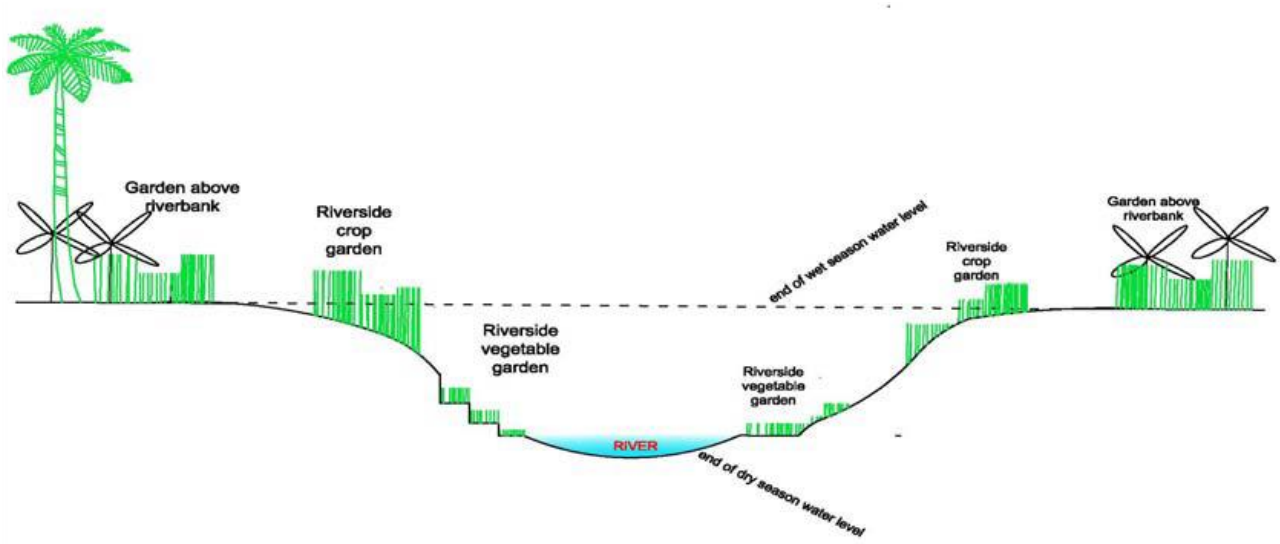


Figure 5-15: The types of river bank gardens along the XBF in 2004.
Source: NTPC (2005d)

With regards to the compensation packages of the NT2, including the riverbank compensation process, grievance procedures were set up (Figure 5-16) for affected people to use if they were not satisfied by the compensation they received (NTPC, 2005d). This grievance procedure (Figure 5-16) to be put in place in order to help the affected peoples to ask for fair compensation. The participants from V3 stated that they were compensated for the loss of their riverbank gardens [V3-P1 and V3-P7] and that they had no complaints about the riverbank garden compensation packages they received; however, in V4, the participants claimed that some people were not compensated for the loss of their riverbank gardens [V3-P2, V4-P6, and V4-P7]. They emphasised that they were treated unfairly with their complaints to the District Justice Office, which was responsible for the grievance procedure of the NT2 project at that time [V4-P2 and V4-P7].

> After they (the power company and the officials) finished collecting data, the NT2 said for those who were not clear or were not satisfied with this information could fill in the form for prosecution, but they would need to pay 20,000 Kip [USD 2.5] for that process...So I did that, but nobody came and gave me any explanation after that. I think at least they should come and do an inspection of the riverbank gardens of the people who submitted their prosecution forms in order to check whether or not they had some plants on their riverbank gardens. And also the NT2 project should give the villagers clear answers for that. This is the point that I disagreed with the NT2 project [V4-P2].

Figure 5-16: Grievance procedure of the NT2 project.
Source: NTPC (2005d)

Figure 5-17 shows two examples of riverbank gardens that the participants claimed were not compensated by the NT2 project. From the photographs it was clear that these plots of land were not used to plant any crops. There was, therefore, a possibility that these two so-called gardens were not recorded during the data survey process. It could also be the case that the land was occupied without legal title, and because of that would not be eligible for cash compensation.

Figure 5-17: Two riverbank gardens of the villagers of V4 where the villagers claimed that they have not received compensation from the NT2.
Source: the author (2016)

5.6.2. Population growth

McDowell et al. (2015) projected that due to the population growth in the Nakai resettlement areas, together with its limited land resources, the new generation of the Nakai residents will need to adapt to handle to the circumstances in whichever way they consider best suits them. For example, some might focus on intensified agricultural activities on the plots of land provided and others might decide to leave the village to search for jobs in the lowland area. V2

participants reinforce this projection; a youth female participant from V2 shared the comment that:

> I would like to say that I need our community to have more jobs for the youths so that they do not need to go away from the village for job hunting...Anything that can make money for the youths ...because there is no job for them so some just left the village to find jobs in other places [V2-P4].

5.6.3. Livelihood restoration programme

To minimise the impact on the livelihood of the communities both upstream and downstream, a set of livelihood restoration programmes was developed to enhance the sustainability of the affected people after relocation and operation of the NT2 project (NTPC, 2005c, 2005d). These programmes included:

i. Reservoir fishery programme (Upstream)
ii. Village forest programme (Upstream)
iii. Agricultural and livestock development programme (Upstream and downstream)
iv. Non-farm enterprises programme (Upstream and downstream)

Reservoir Fishery

The people from V1 are encountering difficulties with regard to this programme. One example was that there were a number of outsiders from Nam Ngum 1 hydropower dam in Vientiane province who were permitted to carry out commercial fishing in the Nakai reservoir (McDowell et al., 2010b; McDowell & Talbot, 2014). Local fishermen and the local administration authorities share management and the responsibilities of managing the fishing resources in the Nakai reservoir (NTPC, 2005c). Under this co-management approach the relevant local administration agencies work closely with the fishing communities and provide technical guidance and support in preparing rules and regulations for managing the reservoir and river fisheries, such as identification of fish conservation zones. The village fishing committees are involved in a joint monitoring programme with the relevant authorities as well as with the power company to make sure that the aquatic habitat is protected and sustainable use of the resource is maintained. Enforcement of the rules and regulations is implemented collaboratively within the fishing communities (NTPC, 2005c).

The Panel of Experts recognised that the reservoir fishery programme was the most successful livelihood restoration programme, in comparison to other programmes because it provides a reliable source of income and food for the resettled people (McDowell et al., 2016; McDowell et al., 2015; McDowell & Talbot, 2014). The V1 participants reported that in the past the host villagers who are not being relocated were not allowed to be involved in reservoir fishing, because it was to benefit the relocated people only. Fortunately, after numerous negotiations the host villagers are allowed to fish on the Nakai reservoir [V1-P4]. The V1 participants reported that the host villagers are still being excluded from other benefits of the NT2 project [V1-P1, V1-P6, and V1-P7]. McDowell and Talbot (2014) and participants from V1 and V2 indicated that although the fish conservation zone was identified in each village, there were some cases recorded where local fishermen caught fish in the village fish conservation zones [V1-P1, V2-P5, V2-P6]. There were also cases of illegal fishing carried out around the Nakai reservoir (Figure 5-18) (McDowell et al., 2016; McDowell & Sudder, 2013; McDowell & Talbot, 2014).

Figure 5-18: Illegal fishing camps found in Nakai Num Theun National Protected Area. Source: McDowell and Sudder (2013)

One of the village head panel of V2 pointed out that there are insufficient skilled fishermen in V2, and therefore they only fish for family consumption rather than commercial fishing, which is the case in V1 and other upstream communities [V2-P1]. Both V1 and V2 participants acknowledged that the fish price fluctuated, based on fish species and season. The fish price was significantly lower when they were able to catch a lot of fish, while the higher fish price could be realised during the time when they could catch only a small number of fish [V1-P4 and V1-P7, V2-P1]. The power company acknowledged that the market price of fish in Lao PDR was between USD 1 and 2 per kilogram (NTPC, 2005c). With the instability of the fish price and also to add value to the fish caught, the power company encouraged the fishermen to

make dried fish products and they also supplied the material for building simple dried fish storage structures. Dried fish was expected to be one way of generating family income; however, V1 elder female participants claimed that the dried fish product was not very popular in the local market [V1-P2 and V1-P7].

Village forest programme

The 20,800 ha forest area was to be managed through a sustainable forest management approach in order to sustain a source of income for the resettled villagers (Division of Agriculture and Forestry of Khammoune Province, 2003). It was estimated that the affected households could benefit from the village forest programme by around USD 300 annually. This income would be in the form of an annual dividend of USD 100 from the logging of forest in the resettlement area and USD 200 paid as wages to those working as a forest labour (Division of Agriculture and Forestry of Khammoune Province, 2003).

The village forest programme was estimated to have a 30 year capacity for generating benefits to the relocated people (NTPC, 2005c). According to McDowell et al. (2009), during the resettlement construction phase, the villagers earned around USD 205 per year affected household by supplying processed wood for resettlement construction. Although the village forest programme was expected to be the major source of sustainable income for the resettled people, it showed the lowest level of satisfaction outcome (McDowell et al., 2016; McDowell et al., 2014, 2015). The failure of the community forest led to the expansion of the resettlement implementation period until the end of 2017 instead of 2015 as had been initially planned (McDowell et al., 2015). Moreover, the Panel of Experts found that the dividends from the village forest programme were expected to drop from time to time between 2009 and 2015 (McDowell et al., 2010b, 2013b, 2015). These uncertain dividends could not be considered as a sustainable source of income for the resettled people compared to the number of trees that had been logged from the village forest area (McDowell & Scudder, 2011). The participants from the two communities shared the same information that they had not received dividends from the community forest lately. One of the participants stated:

> The trees were logged in the 20,800 ha of village forest area. The logs were processed in the sawmill into wood products. While some wood furniture was sold and some were distributed to villages as required...The dividend to the community was distributed to the affected households annually. They worked together with the responsible agencies in monitoring and preventing forest fire in the forest village area, but then the village forest activities has not been implemented lately and I have no idea whether it does not have budget for implementing it or not...And, the leaders for the community forestry company were changed over time so the logging decreased between 2008 and 2011, but they still were able to manage and distribute the dividend to the affected households. They had received about USD 205 per year per household....but then the dividends were decreased, some years even only 150,000 kip per year [around USD 19]. This is the truth! [V1-P5].

According to Provincial Agriculture and Forestry Department Khammoune Province (2003), the village forest units are responsible for forming the village teams to participate in all related plans or activities of the village forest programme together with other stakeholders. The village teams role includes forming the village forest plantation and rehabilitation teams, forest conservation, monitoring, and patrolling teams, bush fire protection team, forest inventory, and management team, timber logging teams and wood processing team (Division of Agriculture and Forestry of Khammoune Province, 2003). The illegal logging issue in the community forest as well as Nakai Nam Theun National Protected Area was documented in monitoring reports by the Panel of Experts (McDowell, Scudder, & Talbot, 2010a; McDowell et al., 2010b; McDowell, Scudder, & Talbot, 2011, 2013a; McDowell et al., 2013b, 2014). Two male participants pointed out that there are some challenges, encouraging all the villagers, especially those who are not eligible to receive a benefit from the village forest programme to participate effectively in forest conservation or protection activities [V1-P5 and V1-P6].

> I participated in one of the village consultation workshops with the NT2 project on the community forest issues. They (the NTPC staff and relevant government officials) organised the community consultation in order to discuss the community forest protection, so I pointed out that it was hard for me (one of the village forest unit members) to encourage all of the V1 villagers to be involved in the village forest unit's activities because there are two main groups of villagers in our village. Firstly there are the villagers who are eligible for benefits from the NT2 project such as receiving an annual dividend. The second group are those who are not eligible. So I asked them (the NTPC staff and relevant government officials) what should we do?...Even the people from the World Bank said they could do nothing, we just need to follow what was documented in the Concession Agreement [V1-P5].

One problem was that there was no reliable up-to-date data indicating the remaining forest resource available to maintain the function of the village forest programme (McDowell et al., 2013b). Therefore, recommendations were made to the village forest programme board and the village forest committee, including identifying the remaining wood resource, considering options to manage the community forest, and finding a highly skilled village forest programme manager with the motivation to improve the effectiveness of the village forest programme (McDowell et al., 2013b).

Agricultural and livestock development programmes

Throughout the resettlement implementation period, agricultural technical advice and training was to be given to the affected people (NTPC, 2005c). In addition to this training the agricultural development programme also provided rice, vegetable seeds, fruit tree seedlings, and some farm tools. McDowell et al. (2016) stated that small livestock raising declined in 2015. One of the V1 female participants reinforced this, noting that even with the introduction of a number of livelihood restoration programmes, there was no successful project for them to follow and learn from [V1-P3].

> For example, to do pig breeding, the villagers have to travel to another city like Gnommalat or Thakhek to buy pig food because it is not available here in Nakai District. This is one of the factors preventing the villagers in maintaining pig farming activities [V1-P3].

A V2 participant shared a similar issue regarding the difficulty of doing organic vegetable planting in his community. This activity was promoted as an extra source of family income to maintain their livelihoods [V2-P1]; however, he claimed that there were some factors limiting the success of this activity. This included insufficient water during the dry season, no secured market for their vegetables because the products are unpopular in the local market, and no vehicle to take their produce to other districts [V2-P1 and V2-P6]. The Panel of Experts recommended they conduct a market survey to make sure that the villagers' cash crop products have a secure market (McDowell et al., 2006, 2008). V2-P1 further explained that other places, such as the Vangvieng and Pakngum Districts, where organic vegetables were planted, were able to distribute to organic vegetable markets in Vientiane, the capital city of Lao PDR. Inevitably those farmers have secured a market and were fully equipped with transportation, and therefore could generate sufficient income from organic farming [V2-P1].

The farmers were provided with technical support and materials such as plastic sheets but the V4 participants claimed that the vegetable planting programme stopped after the downstream programme was handed over to the local administration in 2013 [V4-P2 and V4-P7]. There were two contrasting views in relation to the failure of organic vegetable planting programme in this village. One participant perceived that programme was uneconomic [V4-P1], and in contrast, another participant believed the programme was economically viable. The programme was limited in the short term by material shortages because there was no plastic sheet available in the local markets of Nongbok District [V4-P2]. As a result, the V4 participants kept up the organic vegetable planting activity (Figure 5-19).

Figure 5-19: The plot of land where it used to be an organic vegetable garden of one of the V4 villagers.
Source: The author, 2016

Fish-for-fish compensation options and livestock raising development programmes were introduced and discussed with the affected villagers downstream (Zeeuw et al., 2005). The power company supported the villagers who were interested in the fish farming programme through not only technical guidance, but they also provided juvenile fish for raising [V4-P2]. To learn about fish farming options, a representative from V3 rice seed production group stated that the villagers travelled to Thailand to study where the rice-fish farming approach was implemented; however, only fish pond culture (Figure 5-20) was adopted in V3, and the rice-fish farming option was not favoured by the villagers because they were afraid of the risks involved from flooding [V3-P7].

Figure 5-20: Fish pond culture that was promoted by the power company in V3.
Source: The author (2016)

The NT2 projects provided technical support for the improvement of rice farming practices and the project partially supported the purchase of farming machines (

Figure 5-21). The power company helped farmers to set up rice seed production groups in the two villages and construct the community farmer learning centre (Figure 5-22) so that local farmers could share knowledge and skills to the interested parties, including farmers within the communities. The village rice seed production group earn money from selling the rice seed to farmers not only in the Nongbok District, but also other districts and provinces [V3-P1].

Figure 5-21: Rice growing (left) and rice threshing machines (right) for the rice seed producing group which is partially supported by power company.
Source: The author (2016)

Figure 5-22: The community agriculture learning centre in V4.
Source: The author (2016)

Non-farm programmes

There is the potential for non-farm activities, such as eco-tourism, could be promoted so that the resettled villagers could have another option for generating income for their families (McDowell et al., 2016; McDowell & Sudder, 2013; McDowell & Talbot, 2014). The power company indicated that with the technical and financial support of the power company, affected people (even those with a disability) are benefitting from the power project through running small family businesses, such as motorbike repair shops and noodle restaurants in

Nongbouakham (one of the affected communities in Nakai upstream area). These examples reflected how the affected people successfully adapted themselves to the new resettlement area where they were relocated in 2006 (NTPC, 2015b). Despite the limited number of youth participants, the adult participants in this research asserted that affected villagers, including the youth, seemed not interested in joining alternative jobs such as motorbike repair training programmes. Instead, only villagers who were not eligible for livelihood restoration programmes showed interest in joining the programmes.

Interestingly McDowell et al. (2016) pointed out that although there are a number of resettled people who finished non-farm income generation training courses, such as the motorbike repair and tailor courses, only half of them were applying the skills they learned for generating income. In relation to this information, participants in V1 stated that insufficient time to develop their skills, and lack of sufficient capital investment, were the main reasons [V1-P5 and V1-P6]. As a representative of V1 village youth panel said that:

> Joining the training on motorbike repair or carpentry was only three months, it was not enough to sufficiently develop their skills for starting up their own shops afterwards and also because they (the people who joined the training) have insufficient money to set up their shops too [V1-P6].

The V2 participants pointed out that although some alternative programmes were promoted to the affected villagers, none of them were preferred by most of the villagers [V2-P1, V2-P2, and V2-P3]. Instead, they believed that having some kind of factory where they can work permanently would help them enhance their livelihood [V2-P1, V2-P5, and V2-P6].

It was acknowledged that the indigenous crafts and weaving practices were incorporated as part of the livelihood restoration options, although these options were not considered as the main source of income (NTPC, 2009). The handicraft activities programme was aimed at creating an opportunity for generating income and maintaining the cultural heritage of weaving in the country (NTPC, 2009). It was, however, the most desired option for the women in the affected communities (Zeeuw et al., 2006). The power company indicated that since 2008 weaving activity has provided benefit, although it is not the major source of income for the women group in Mahaxay District (another of the downstream affected communities). This women's weaving group runs as a part-time job so that the members of the group can earn extra income on top of rice farming and livestock raising which are their main source of income (NTPC, 2015a). The V3 and V4 female participants stated that handicraft and weaving

activities were not successful, because there was no reliable market for their products and there was no ongoing support to keep the activities running.

> There were some training courses such as producing textile, Lao silk skirt and if we could do that the project would help us in terms of finding the market; however, in our village people are more focused on rice farming, so we haven't had much time for such things....we (the V3 woman group, including the youth) tried to do small hand-made rug weaving for a month, I guess….but we could only produce a very little amount, there were not enough to take them to the market. So it is only rice farming that we can rely on...There was no ongoing support after it was not successful following the first attempt. If the project said that we (the women group) could try again next year or if they said, they would try to find the market for us then we would be happy to continue and to work with that programme…So things are even worse now the downstream programme has already finished [V3-P2].

5.6.4. Village development fund

The upstream affected people, local administration agencies, and the power company agreed that the heavy farm equipment was not suitable for the agricultural activities in the resettlement areas because of the slope of the land (Rural Development and Poverty Elimination Office of Nakai District, 2016b). Therefore, a village development fund was set up by using the budget that was designed for purchasing the heavy farm equipment. The village development fund is a microfinance scheme from which people can borrow money at low interest rates to assist in improving their lives. The total interest paid from the borrowers is then redistributed to all affected people in the form of an annual dividend, while the original total capital of the fund is maintained (Rural Development and Poverty Elimination Office of Nakai District, 2016b). The village development fund can be used for many purposes, including fishing, trading, child education, health treatment, and agriculture (Rural Development and Poverty Elimination Office of Nakai District, 2016a, 2016b). The village development fund panels attended the training courses provided by the project before starting, running, and managing the fund (V2-P2 and V2-P3). In the downstream area, which is affected by the NT2 project, the village development fund was established through a one off payment from the power company based on the number of families in each village affected by a common resource, such as the XBF. The fluctuation of the fund payments between villages caused some confusion.

> Well there is a limitation in terms of the village development fund, like our community received 850,000 kip/family [around USD106], while other communities such as Navangneua (V3) received more than 2,000,000 kip/family [USD 250] [V4-P6].

From personal communications with one of the officials of Nongbok District, it was reported that three villages in the Nongbok District, (Navangneua (V3), Namphu, and Hatsayfong) were selected as pilot villages for implementing the livelihood restoration programmes between 2006 and 2009. These villages received 2,500,000 kip/family (around USD 312) through the village development fund. After the completion of the pilot project, the budget for the village development fund was reduced from 2,500,000 kip/family to 850,000 kip/family (around USD106) by the relevant government stakeholders, including the Resettlement Management Unit, the power company, and District Working Group. The reason behind this decision was that although the XBF was affected by the NT2 project, the riparian people along the XBF are mainly rice farmers. For this reason, improving rice farming techniques was seen as the main contributor in helping the downstream people restore their livelihoods. Since 2010, the village development fund has been provided to other affected communities at the agreed rate of 850,000 kip/family (Personal communication with the district official).

5.6.5. Domestic water supply

While the upstream community participants did not raise any concerns regarding the domestic water supply (deep wells), provided by the NT2 project, the downstream communities encountered some issues. Although there are other various water sources for domestic use, such as rain water, and shallow dug and deep wells, the XBF river water remains the main source of domestic water for the downstream communities (NTPC, 2005d). The XBF riparian people used water from the XBF for various purposes, such as clothes washing, bathing, and dish washing (NTPC, 2005d). Until the three measures intended to improve the water quality in the XBF zones were introduced many were expected to use a temporary solution for the first few years of the operation of the NT2 project (NTPC, 2005d). Biomass removal in the reservoir area, construction of the 8 million m^3 regulating pond below the powerhouse, and installing the aeration weirs (Figure 5-23) along the 27 km downstream channel (Stephane et al., 2016) were the longer term solutions.

Figure 5-23: One of the aeration wires installed along the downstream channel of the NT2 project to improve the quality of the water discharged from the reservoir.
Source: Stephane et al. (2016)

To minimise the impact on the use of XBF as a domestic water source mitigations were discussed during the community consultation process. The favoured option, particularly taking account of economic constraints was to install a deep well [V3-P1]. There were 12 deep wells installed in V3 and 5 deep wells installed in V4. The participants reported that, initially, the water abstracted from most of the deep wells was not suitable for domestic use because it had a bad smell and was rust-coloured [V3-P1and V4-P1]. The deep well water quality issue was raised and this resulted in the installation of a sand filter system, which fixed the water quality issues (Figure 5-24). A further matter, however, is that villagers reported that no broken deep wells have been fixed since the downstream programmes were handed over to the local government in 2013. As a result, there are only two operational deep wells in each community; the rest are damaged and abandoned.

Figure 5-24: The deep wells that are still being used and broken deep wells in V3.
Source: the author (2016)

Figure 5-25: On the left a deep well that is still being used and broken deep well on the right in V4.
Source: The author (2016)

5.7. Discussion

The findings from the four communities in this study confirmed that the upstream communities (V1 and V2) and downstream communities (V3 and V4) were involved in the community consultation workshops as part of the Environmental Impact Assessment (EIA) process of the NT2 project. Dore and Lebel (2010) stated that for many other projects the EIA process was conducted without the participation of the affected people or other interested parties. For instance, the study by Scodanibbio and Mañez (2005) indicated that the affected people in the

downstream area of a proposed hydropower project in the Lower Zambezi, in Mozambique, were not involved in the consultation process during the EIA preparation of that project. The WCD (2000) emphasised that affected groups need to be included in joint planning and negotiating on mitigation, resettlement, and development activities associated with decision-making. This enables them to exercise their rights in influencing processes, and it also helps them to understand the implementation process as well as factors associated with the final options. My research found that the affected people, especially those who needed to be resettled in the Nakai Plateau, had an opportunity to raise their concerns to the NT2 project developer and the local administration authorities. Those who were affected were able to influence the design of the new houses and provide input as to resettlement location options. Those affected also had an opportunity to ask for the compensation option they preferred, for example land for land or cash compensation options. This kind of community engagement illustrated a move by the NT2 project away from the top-down approach of hydropower development in Lao PDR, such as the Theun Hinboun (Scudder, 2005; Virtanen, 2006), Houay Ho (Delang & Toro, 2011), and Nam Mung 3 (Sayatham & Suhardiman, 2015). In these previous hydropower developments, inclusion of affected personnel, was limited in the EIA consultation process, including resettlement and compensation options.

The financial support from the company in the form of a village development fund that was considered by the participants to be beneficial to the communities. This fund benefitted community members in a number of ways, including establishing family businesses and also in the care of urgent sickness. Establishing the village development fund seems to have been more effective than just a cash compensation option, because the village development fund can still benefit the villagers over a number of years. It is, however, important to note that the amount of money allocated to the affected communities does need to be carefully estimated in the early stage so that that all affected communities are satisfied with their allocation, as was not the case with V3 and V4.

In Chapter 4 the officials viewed the livelihood restoration options provided by the power company. This included vocational training (e.g. fixing motorbikes, fish farming, organic vegetable growing, and weaving programmes) as an opportunity for the affected people to supplement their household incomes; however, insufficient time, resources, and ongoing support was found to be an obstacle for ongoing success (Table 5-1) according to Dore (2007) model of Multi-Stakeholder Process (MSP). For example, the V1 participants believed that the vocational training was conducted with a time constraint. For this reason, the training

participants could not develop professional skills for starting up their family business. The WCD (2000) states that sufficient time for digesting information is important for consulting with the affected individuals. In the same way, training participants needed sufficient time to learn and absorb the knowledge and skills imparted on them before they could apply it. Often the assumption was made that all participants were fast learners, but this might not be the case, and those who were slow learners needed more support. This is a very important point that should be regularly monitored so that the real needs of the training participants can be identified. By extending the training course timeframes, participants who joined the training could build up their confidence in new professional skills, and therefore, they will feel more encouraged to put their knowledge and skills into practice. Without this, the participants may have low motivation to join training courses because do not meet their needs and expectations.

Table 5-1: Comparing desirable context of an MSP model developed by Dore (2007) and the MSP applied in the affected communities of the NT2 project

Dore (2007)	**Evidence in the case study of NT2 (Communities)**	
Desirable context	**Strengths**	**Weaknesses**
Well intentioned	Affected community involved in co-designing houses and development of the regulation for governing the village groups	The host villagers were not involved in the process
Clear purpose and scope	Supporting the Lao government goal in utilising the water resource through hydropower project for contributing the social and economic development, including improving the living condition of the affected villagers, especially the upstream communities	There is no market research in relation to the livelihood development programmes (e.g., organic vegetable planting)
Sufficient political support	Politically supported by local administrations	There is no ongoing support, especially when the downstream was handed over to local administration
Sufficient time	Providing short-term training courses regarding livelihood restoration programmes	Insufficient for slow learners to take advantage from the training course and lack of ongoing support after training courses

Sufficient resources	Financially and technically supported by the power company in running the livelihood restoration programmes, including the village development fund	The budget allocated for village development fund was not the same in each community, which led to confusion for communities. Hard to find material for maintaining the livestock raising and vegetable planting programmes in local market
Appropriate levels and scales	Undertaken consultation workshops with each community	

Insufficient resources, including financial support, limited implementation and maintenance of the livelihood programmes. An example was when the villagers of V1 were provided with an opportunity to learn about pig farming techniques, but the fundamental component of raising pigs (pig food) was unavailable in the local markets of Nakai. Similarly, organic crop planting was promoted to participants in V2 but they were faced with an unsecured market, and this prevented the villagers from benefitting from that programme (Table 5-1). The most important issue was that the market demand for organic vegetables, in a small rural city like Nakai, cannot be compared to a big urban city, such as the capital city of Lao PDR, Vientiane. In V4, as part of the downstream social development programmes, participants indicated that an organic vegetable growing programme could provide economic benefit to their families; however, they encountered difficulty in finding material like plastic sheeting in the local market of Nongbok District to keep the programme going. Another example of insufficient resources was in V3 and V4, where most of public facilities, such as deep wells, were neglected due to inadequate financial support. These community facilities failed after the programmes were transferred to the local administration and they then stopped funding the ongoing monitoring and maintenance costs. This research project has determined that although the livelihood restoration programmes had the potential to generate income for the affected people, more comprehensive planning was still needed, including market research, and long-term financial support.

The participants from the four communities acknowledged that even though numerous mitigations and livelihood restoration options were developed and implemented, the effectiveness of those livelihood alternatives were limited. The local district administration (Chief of the district and the provincial governor), provided political support for the

establishment of the village groups, such as community forestry, community reservoir fisheries, and community rice seed production groups. These programmes were designed in the hope that the affected communities can work collaboratively with responsible agencies from the local administration and the power company through a co-management approach. Challenges associated with those programmes were not adequately identified. For example, there was a lack of involvement of the host villagers who were not relocated and those in V1, who were not eligible for the livelihood restoration programmes (Table 5-2). Although the affected people (who were relocated or lost land in the inundation area) were the priority of the livelihood restoration programmes, the host villagers would also be disadvantaged by the NT2 project, and therefore, should have been part of the resource planning process. If all villagers had discussed their concerns as a community, a broad range of possible solutions and also possible sustainable management and benefit sharing could have been developed (Smith & Cartin, 2011; Warner, 2006). Despite the fact that a limited number of youth participated in the focus groups, the adult participants, including the representative of the village youth panel claimed that the affected people, including youth, had low motivation to participate in the vocational training programmes offered by the power company.

The findings in Chapter 4 confirmed that there was some form of NGO involvement in different phases of the NT2 project development process. For instance, the International Union for Conservation of Nature and Wildlife Conservation Society were involved during the project EIA preparation phase, with further involvement of Wildlife Conservation Society in the elephant programme during the construction phase. The participation of the International Union for Conservation of Nature, Wildlife Conservation Society, and World Wide Fund for Nature all assisted in recruiting senior officers for the Watershed Management Protection Authority secretariat. This participation reflected an attempt to involve diverse stakeholders in the MSP (Dore, 2007; Hemmati, 2002a; Rowe & Frewer, 2000) as summarised in Table 5-2. This involvement in a wider sense was only really recognised at an institutional level. Those most affected by the project, do not share the same understanding. The villagers asserted that they had no experience in working with any NGOs in previous community development. This suggests that at the community level the understanding of the role of NGOs was generally low. For example, the communities could not differentiate between the representative of power company staff and other parties, such as the Panel of Experts and the International Advisory Group teams. The villagers tended to generalise and to view all foreigners as power company staff.

Table 5-2: Comparing desirable process of an MSP model developed by Dore (2007) and the MSP applied in the four affected communities of the NT2

Dore (2007)	Evidence in the case study of NT2 (communities)	
Desirable Process	**Strengths**	**Weaknesses**
Inclusive	Involving NGOs into the project development process during project preparation, construction, and operation, including the elephant programme	The communities were not aware of the involvement of the NGOs for the development of the NT2 project.
Facilitated	Local officials were engaged in community consultation level	The youth were not actively involved in the consultation process
Ethical	Establishing the grievance procedure to oversee to complaints of the affected people	The result of the grievance procedure was not communicated to the communities, especially in the V4 case
Visionary and focused	Aiming for long-term social and economic development of the country, including the communities through infrastructure development, livelihood restoration programmes, and village development fund	There is no long-term support for some downstream programmes
Holistic	Identifying the priorities of affected communities for improving their livelihoods like the improvement of rice seed production groups in downstream communities	The affected individuals, especially the indigenous people were disadvantaged from the outsiders, including the high reservoir fisheries experience from the Nam Ngum dam 1
Informed	Providing information on the power company's website	Poor institutional memories, including the communities
Deliberative	Taking into account the local administration and communities opinions in re-designing the water gates in downstream communities	

Communicative	Utilising simple posters for delivering the complex issues of the project to the local people	The report of the Panel of Experts was limited to wider audience due to the language barrier

The improved infrastructure of the upstream communities, such as schools, houses, electricity, and all-weather access roads have provided opportunity for the affected communities to broaden their views. This is especially so for their children because they have access to better education (Table 5-2). These factors allowed the Nakai people to have an opportunity to experience development to the same degree as other lowland people. The power company also provided technical and financial support to villages. For instance, the establishment of rice seed production groups in the downstream communities, which not only helped local farmers to improve their agriculture practice, but also created opportunities for them to earn extra an source of income from selling rice seeds.

Chapter 4 indicated that up-to-date information of the NT2 project, such as the monitoring reports published by the Panel of Experts, were only publicly available through the power company's websites. Because the reports were in English, and accessing them required Internet access, this number who could access the reports was restricted and excluded the many officials with limited English abilities and those from affected communities who had both limited Internet and limited English. This lack of physical access to the information site or language barriers prevented some officials and locals from understanding the current progress and critical issues (Table 5-2) of the MSP (Dore, 2007; Hemmati, 2002a; Rowe & Frewer, 2000). A hardcopy of the Lao version of the documents, such as the Panel of Experts independent monitoring reports, should have been made available to the public. Once the local administration officials are able to access the information, the next step was transferring the information to the communities adequately. Varma et al. (2009) found that once the stakeholders were involved in reviewing and reflecting on the available project documentation, their perceptions and understanding of the project could change, and they could be aware of the cause and effect of ineffective management approaches. By interacting with other stakeholders and exchanging their views and concerns there was increased awareness of each other's interests and concerns. The reviewing session could also encourage stakeholders involved in the session to participate in the upcoming joint planning and monitoring process (Varma et al., 2009). Therefore, the responsible agencies and the communities could team up and conduct a regular review of the available reports provided by the internal and external

monitoring agencies. By carrying out the review at both the managerial and community level, concerns of each stakeholder group could be addressed. A regular review process also helped the communities be aware of the complexity of the issues associated, not only within their communities, but also other parts of the project.

Another challenge came from an influx of outsiders who intended to capitalise on the resources in the Nakai resettlement area. For example, the Nakai reservoir of the NT2 project attracted some highly experienced fishers from the Nam Ngum 1 hydropower dam, which was the first large-scale hydropower dam in Lao PDR, in the Vientiane province. McDowell et al. (2010b) pointed out that this was a factor undermining the benefit from reservoir fisheries that should have been for the Nakai people. These outsider fishers from the Nam Ngum 1 hydropower dam could potentially out-fish the V1 and V2 local fishers because reservoir fishing was new to them. The participants of V2 said that they are not accustomed to commercial reservoir fisheries like other communities, including V1. In addition, most of V2's residents are indigenous people, who are slower to adjust to new technology and economic development than Tai Lao groups like Lao Loum and Phou Tay in V1, V3, and V4. With this in mind, the indigenous people might need more support as highlighted under the indigenous peoples policy of WB and ADB. Bank-supported projects need to develop a comprehensive indigenous people development plan to adequately address these concerns (ADB, 1998; WB, 2013a) alongside with other affected groups of people.

Mega projects cannot always maintain the promises made to the affected people (Dore & Lebel, 2010). In the study by Siciliano and Urban (2016) on the development of the Bakun dam in Malaysia, the proposed compensation packages were not implemented during the operational phase of the project, despite being outlined in the Environmental Impact Assessment (EIA) process. In the case of the NT2 project, the compensation and grievance mechanism was established to respond to the concerns raised by the affected people; however, this study found that from the community point of view, the compensation and grievance procedure for the NT2 project was not implemented effectively (Table 5-3). This stood in contrast to what the officials believed (Section 4.3.3). They believed the grievance mechanism was fair (refer to Table 4-2). The problem was linked with ineffective communication channels between the resettlement and compensation staff and the affected peoples. For instance, in the upstream communities, the cash compensation policy on the loss of fruit trees in V1 was not clearly presented to the affected individuals. The compensation policy was misinterpreted which led to an over expectation of the cash compensation that the villagers expected. When the expectations were

not met, it lessened the trust that the community had in the NT2 project to a significant extent. This also happened in V4, where the cash compensation for the loss of riverbank gardens led the villagers take a grievance procedure to receive compensation for their losses. The affected people would not have been mistaken about their eligibility for compensation if the responsible agencies, including the District Office of Justice, had given solid clarification on what the criteria of the riverbank gardens were. These criteria were clearly defined in the project document, but not to the villagers.

Table 5-3: Comparing desirable outcomes of an MSP model developed by Dore (2000) and the MSP applied in the four affected communities of the NT2 project

Dore (2007)	**Evidence in the case study of NT2**	
Desirable outcomes	**Strengths**	**Weaknesses**
Options assessed	Construction of the aeration wires along the downstream channel to minimise the impact on XBF water quality. Providing deep wells to minimise the impact on domestic water source Providing support on livelihood restoration programmes, such as weaving activities	The positive effects were not maximised through the available resource and local knowledge of the affected communities both upstream and downstream areas
Rights, risks, and responsibilities established	Establishing government ad hoc committees at all levels (Environmental Management Unit, Resettlement Management Unit and District Working Groups) to oversee the project development process	Ongoing monitoring of the local administrations were not effectively implemented after the handing over process
More understanding	The effects and cost associated with the dam development was unfolded which in turn led to more understanding of communities involved in the process in some degree	There was poor understanding on the reservoir fisheries conservation concept and the rights on the common resource like land in the resettlement area, which led to illegal fishing and illegal occupation of land in the upstream communities.

		Some downstream villagers could not receive key messages in terms of the power company support for livelihood restoration programmes
Workable agreements	The institutions involved agreed on their mandates designed for managing the project	Breaking promise regarding verbal agreement which led to disappointment of the V3 villagers
Discursive legitimacy	Affected communities involved in the process could communicate their concerns during the process	The clarifications after the grievance procedure was not delivered to the community, especially V4
Constructive	Constructive feedbacks were provided by the various parties, including the Panel of Experts and other stakeholders were integrated into project design, e.g. conducting of the conservation campaign	More stakeholder like the public and private tourism sectors should be involved in maximising the potential positive effects for the communities

During the development of the Kamchay dam in Cambodia, the affected people did not receive the free electricity that had been negotiated because it was only a verbal agreement (Siciliano et al., 2015). A verbal agreement was also evident in this study, which in turn led to dissatisfaction of the community. At a community consultation workshop the power company made a verbal agreement with V3 to construct concrete riverbank protection for the Tumpavang temple (Table 5-3). This temple has environmental and cultural values important to the villagers protecting it, as it contains a highly valued 2000 year old Tumphavang stupa (refer to Figure 5-14). The WB (2013b) emphasises that it is important to identify alternative options to minimise negative effects and maximise the positive benefits of its supported project. Therefore, construction of the riverbank protection at this temple could benefit many stakeholders and build trust among the community, the local officials, and the power company. Furthermore, the construction of the riverbank protection would strengthen the effectiveness of the mitigations of the project in minimising the impact on the cultural site due to the riverbank erosion.

The Tumpavang stupa could be one of the most beneficial cultural attractions, which would provide an opportunity for tourism in the V3 community. Women, elderly, and the youth can be part of temple tourism through preparing the items that are used to show respect to the stupa

and spirits, such as Kan Mak Beng (made from banana leaf) and flowers to the visitors. This is not so different to the possibility of developing tourism activities in the Nakai reservoir and Nakai Nam Theun National Protected Area. The upstream people can be involved in developing travelling activities such as a story telling, or as tour guides in the Nakai forest. They could even develop their houses as homestays for internal and external tourists. Developing the existing natural resources of the communities through promoting tourism activities could reinforce the idea of maximising positive effects of the NT2 project on the communities. More importantly, this requires active engagement and cooperation from other stakeholder groups such as the Ministry of Information, Culture and Tourism, its provincial and district agencies, and private tourism operators (Table 5-3).

Although a power company representative indicated that the information on biodiversity conservation was implemented beyond the requirement of the Concession Agreement, there was a poor understanding of what that meant at the community level. Villagers from upstream communities purportedly engaged in illegal reservoir fishing and illegal occupation of the land in the upstream communities. These findings suggest that the rights of affected people to common resources and the responsibility for managing the resources need to be strengthened. Even though there might be an indication that some villagers are willing to follow the rules designed to maintain sustainability of fisheries and land resources for the future generations of the Nakai people, this idea is not fully understood by all stakeholders, especially the affected communities (Table 5-3). The sense of ownership of the resources needs to be acknowledged and agreed on by the community members. If the community residents do not share the same goal, vision, and responsibilities for managing their resources it would be hard to ensure that the resources in this area will be able to meet the needs of the generations to come.

Stakeholders who are involved in the process need to be able to obtain sufficient project information in an accessible and appropriate manner, form, and language so that they understand what is planned (ADB, 2003a; Diduck et al., 2007; Dore, 2007; Hemmati, 2002a; Huntjens et al., 2015; WB, 2013a, 2013b). The findings from this study suggest that using simple posters including both positive and negative effects is a useful way of transferring project information to the affected people. This tool enables local people who have less knowledge on the technical issues to capture the information about the project. Participating in the community consultation workshops can allow affected people to have a greater understanding of the project's positive and negative effects on their social and environmental components. This aspect was more evident in the downstream communities where the

participants acknowledged that they were aware of the projected effects, especially on the water level and quality of XBF, and the reduction of fish population in XBF. There was still misunderstanding about the financial and technical support from the power company on restoring the livelihoods of the affected individuals. Therefore, many villagers missed opportunities to obtain support from the power company when the downstream programme was active (Table 5-3).

The most vulnerable stakeholders are women, youth, and indigenous people. As such they need to be involved in the decision-making process of the development project (ADB, 1998; WB, 2013a; WCD, 2000). This study revealed that although these stakeholder groups were included in the community consultation, their participation was still limited. For instance, in V3 and V4, the adult participants claimed that even when the most vulnerable villagers, including the youth, attended community consultation workshops, some could not understand the key messages. This claim needs to be further investigated because only a very few of the youth participated in the study.

5.8. Chapter summary

The community's perspective was that there were a lot of benefits being offered in the NT2 development process, even though some aspects were not successfully implemented; however, to understand what these were, involvement in the development process was required. There were gaps in understanding between the institutional and community levels about the compensation and livelihood restoration packages. From the officials and power company point of view, the various livelihood development options could benefit the affected communities to maintain their predevelopment level of income, although they were affected by the NT2 project. Interestingly, the designed programmes did not work as effectively as planned due to a lack of market study and the long-term risks associated with the programmes. These were evident in both upstream and downstream communities. The mitigations and the grievance mechanism applied during the resettlement and compensation process reinforced the belief of the officials that the affected people would not be disadvantaged due to their losses. From the communities' experience the procedure regarding the implementation of the NT2 compensation and grievance mechanism was unclear. There was also a lack of ongoing monitoring and maintenance support for the downstream area after the handover process, especially for the maintenance of the communities' deep wells. Most importantly, the challenges of involving communities in the management and governance of resources were

identified. This lack of participation from entire communities and wider stakeholders groups, including NGOs and the private sector, reduces the effectiveness of the Multi-Stakeholders Process (MSP) approach.

Chapter 6: Conclusion

6.1. Introduction

This study has been motivated by my professional experience, working as a technical officer with the Department of Environmental and Social Impact Assessment, under the Ministry of Natural Resources and Environment, Lao People's Democratic Republic (Lao PDR). Hydropower development schemes have been considered a major factor supporting the social and economic development of the country by the Lao government and there are many future hydropower projects expected to be developed in the years to come. It is important to ensure that such projects will be developed sustainably as planned. This will ensure the impact on the affected communities' environment and livelihoods are minimised, and the benefits are maximised. The primary aim of this study, as noted in Chapter 1, is to make a contribution in finding an effective approach for community involvement for future hydropower development projects in Lao PDR. This has been achieved through exploring and evaluating the effectiveness of the community engagement adopted in a selected case study of the Nam Then 2 (NT2) hydropower project, which is one of the large-scale hydropower schemes that started its commercial operation in 2010.

This chapter begins with Section 6.2, which summarises the critical reflection of the study findings. This section outlines the key community involvement approach identified in the case study of NT2, which reflects the adoption of the environmental and social safeguard policies of multilateral organisation like the World Bank (WB) and Asia Development Bank (ADB). In addition, the section highlights the effective strategies that the key players, such as the Lao government and the power company used in engaging with the stakeholders, such as the NGOs and the local communities. At the end of this section, suggestions to improve the community involvement based on the international practice regarding Multi-Stakeholder Process (MSP) are highlighted. Section 6.3 provides suggestions for possible future study in terms of community participation in hydropower development projects.

6.2. Reflection on answering the research questions

In what ways has the community been involved during the development of the NT2?

The study found that the development of the NT2 project has shown a significant improvement in involving communities in its development process in comparison to the previous hydropower projects in Lao PDR. First, the four communities were appropriately informed and consulted through workshops held during project planning or the Environmental Impact Assessment (EIA) process. This process enabled communities to discuss issues and to raise their concerns, regarding both the positive and negative effects of the project on their communities' environment as well as the community members' livelihoods as noted in Chapter 4. More importantly, during the project planning and design process the resettled people's entitlement was ensured and their right to influence the project design was maintained. This was evident in the joint house design process between the communities and the power company or its consultants (Section 5.4). As a consequence, the final design of the houses satisfied the resettled people's expectations. The resettled people felt respected due to their right to choose the resettlement sites based on their preference, rather than being forced to displace to new environments (e.g. lowland areas in the Gnommalat District). Relocation in the Nakai Plateau adjacent to the reservoir meant they still could feel the familiar sense of their identity as highland people of Nakai.

Second, during the project construction period the unskilled community members were also involved in the resettlement construction as hand labourers (see Sections 4.3.2 and 5.6.3). Even though this work provided only a short-term benefit, officials believed that this participation would allow the communities to develop a connection to their new homes, a connection based not only on the building process but also the design process.

Third, the communities were to be part of the resource management through a co-management approach. This included establishing community groups and associations for managing resources in their communities, such as village forestry and reservoir fisheries. This approach has enabled community involvement in the management practice together with the line government ministries and local administration agencies toward using and protecting the resources in their communities. This is a positive shift from the top-down management approach to a more collaborative management practice (refer to Figure 5-7 and Figure 5-8). In this model government and the community shares responsibility and accountability for overseeing project components. The rice seed production groups in the downstream

communities also indicated a positive direction of handling issues of the modification of the Xe Bang Fai (XBF), one of the sources for riparian people's livelihood by promoting and improving rice seeds with more resistance to the natural floods in the XBF region in comparison to prior NT2. Through encouraging and providing technical and financial support to the farmer groups this opened an opportunity for them to generate income for their family through selling the rice seeds as well as enhancing rice production. This is especially important as it was considered to be the main source of food for the local people along the XBF.

Last, the study also found that women had been involved not only in the community consultation workshops, but also in the community organisations or councils together with men (Sections: 4.4 and 5.7). This reflected the importance of empowering women and opening opportunities to women who were also affected by the development project to participate in its decision-making process as mentioned in Sections: 2.2 and 2.3. The participation of the women enriched discussion of the issues, and identification of and designing solutions, because men and women perceive the issues and their solutions differently.

How did the NT2 approach the challenges of involving the community in the NT2 project management programme?

Based on the institutions and the document review, the NT2 development project adopted several useful ways of overcoming the challenges that arose when engaging with the affected communities. These included involving sociologists and local facilitators to approach the affected people, especially those who were indigenous tribes, during the community consultation workshops. The professional facilitators also were engaged for convening the national and international consultation workshops of the project (Table 4-2 and Table 5-3). By doing so, it was more likely that the all parties' concerns were discussed in an open and ethical forum, without the influence of the government and the power company.

Second, the establishment of government ad hoc committees who played an integral role in enhancing and encouraging community participation in the project development process (Section 4.3). For instance, the Resettlement Management Unit and District Working Groups worked collaboratively with the communities during and after community consultation workshops in which the project effects were identified and discussed. These ad hoc community groups are the key players in monitoring and cooperating with the communities in implementation of the livelihood restoration programmes. The communities find these administrations more approachable than the ministries.

Third, the internal and external monitoring parties, like the Panel of Experts and the International Advisory Group, can also be considered as one of the strongest stakeholder participation components of the NT2 (Sections: 4.2). These parties made a significant contribution in evaluating the implementation process of the NT2 project to make sure it complied with the adopted environmental and social safeguard polices and guidelines of the WB and ADB. Their independent recommendations and expert opinions provoked the Lao government, the power company, and the multilateral agencies like WB and ADB, to handle the complex social and environmental issues of the NT2 project based on international standards strategic recommendation of by the WCD (2000) as outlined in Chapter 2.

The study found that the NGOs of Lao PDR, such as the Wildlife Conservation Society, were consulted for management and protection of the biodiversity of the Nakai Num Theun National Protected Area, one of the project components. The Wildlife Conservation Society team, who were experts in the conservation field worked with the local communities to design appropriate conservation programmes. The Wildlife Conservation Society team also managed the possible conflict between the local communities and wild animals, such as elephants, that could have occurred because of modification of the elephant habitat. Section 4.3 described how this was successfully managed. Other NGOs, such as the World Wide Fund for Nature and the International Union for Conservation of Nature also participated, not only in the consultation process of the project, but also in the recruiting process for the Watershed Management and Protection Authority secretariat officers in 2016. Although participation in staff recruitment is not directly related to involvement in implementing the biodiversity protection programme of the Nakai Num Theun National Protected Area, it has contributed to ensuring that the benefit from the abundant forest of the Nakai Num Theun National Protected Area is protected. This is because the people, who would be recruited through the special recruiting committee, which included the NGOs, will be the right people to work with the local communities to oversee and manage the biodiversity in an effective manner. The process of identifying and screening for suitable candidates could have been better ensured if all of the recruiting members, especially the NGOs, had been able to access all information and take part in early processing as highlighted in Sections: 4.3 and 4.4.

How can this community involvement approach of the NT2 contribute to the ongoing improvement of international practice in relation to MSP?

Although most of the interviewees considered the community involvement approach taken for the NT2 project as the best practice for the hydropower development in Lao PDR, there were also some aspects that needed to be improved. One of the major findings learned from this project is the gap between those who were, and who were not, eligible for the project development programmes. This is because the focus was primarily on those who were relocated (refer to Table 5-2). As a consequence, those who were not eligible to participate in the livelihood restoration, provided by the power company, may not be willing to take part in protecting and managing the resources in the communities. Based on the focus group discussion and the document review this study revealed that when the people in the community do not share the same values, they would not actively contribute to protection of the resource. Instead, this inequality of benefit sharing can lead to exploitation of the available resource, because it was designed to be beneficial only for one group of people in the community. This study confirms the notion that it is not only relocated people that should be part of the project development and management process, but also the host villagers, who share the same community. This is true for the case of V1, where the host community needs to be actively involved throughout the project lifespan. This is a crucial aspect for effective involvement of the community that need to be addressed (see Section 5.7). This is because the benefit-sharing mechanism should reflect the equality in accessing and gaining the benefits provided by the power company and the Lao government.

Ongoing monitoring needs to cover the project lifespan. Such monitoring refers not only to the external monitoring councils, like the Panel of Experts and the International Advisory Group, but also to the internal government agencies, both at central and local levels. The important role of ongoing monitoring is to identify ongoing issues and effects that occurred in the affected community so that appropriate solutions can be proposed. More importantly, to enhance the wider spectrum of identifying and evaluating the issues, NGOs based in Lao PDR can play an integral role together with the government agencies, and the power company, in providing expert opinions and support to the local communities (see Table 4-2). This includes developing existing resources and moving away from offering specific knowledge and skills that cannot be easily adopted by the communities. For instance, the weaving promotion programmes in the downstream communities were of limited value because of a lack of materials (Section 5.6.3).

Maintaining the understanding of stakeholders, including the communities toward ongoing or current progress of the project is found to be limited in the case of the NT2 (Section 4.3.). For example, the Panel of Experts has conducted monitoring and provided independent reviews directly to the Ministry of Energy and Mines, the Prime Minister's Office, and the power company. Their monitoring reports are publicly available online through the power company's website, but because the reports are in English, there is a language barrier for the many stakeholder groups who have limited English, such as the local administration officials and the villagers. The reports are informative and enriched with critical findings about the implementation of the NT2 project. The benefits of these reports will not be maximised, if the local stakeholders, like the district and provincial administration, who worked closely with the affected communities, have limited understanding of the key evaluation messages documented in such reports. For this reason, making the Panel of Experts reports, as well as other relevant reports, accessible to the wider stakeholder groups can potentially enhance the awareness of the responsible agencies, especially the local administration agencies. This can help them respond critically, not only on the ongoing issues, but also encourage them to enhance the effectiveness of the successful programmes adopted in the project area.

This study confirms that it is necessary to extend disseminated information to the communities (see Table 5-2). Once the local administration has absorbed the available information, for example, having the Panel of Experts reports in Lao language, then it should be summarised and disseminated further to the community. This could done in conjunction with community discussion about the issues raised in the reports so that the common ground or solutions could be identified. This will ensure there is a meaningful understanding of the challenges associated with the projects and their communities, because all parties would be well informed and consulted.

Sections: 4.3.2 and 5.7 revealed that effective communication is a key to the success or failure of the project. This is because misleading project policies, including compensation packages, caused the villages mistrust. An example includes misleading compensation policies or criteria at both upstream and downstream communities. It is therefore crucial to have a genuine dialogue to make sure affected persons clearly understand the project's effects on their properties. In the NT2 project, legal documentation, not just land occupation was required for land compensation. If the responsible agencies, such as the District Working Group team had taken such clarifications back to the communities concerns like that of V4 could have been addressed.

The study has identified that the institutional memory of all stakeholder groups involved in the NT2 project needed to be improved (Table 4-2 and Table 5-2). If the project information is maintained and passed on smoothly from one appointed person to another in a timely manner, ongoing project activities can be enhanced. Based on the experiences shared by the institution representatives, the study revealed that institutional memories were not sufficiently developed for all stakeholder groups. When the information was not well organised, it prevented project activities from being implemented. As an example because the monitoring reports from the Environmental Management Unit and the District Working Group were misplaced (because of government reorganisation) work had to be redone. The lesson is to establish one reliable source of information that can be accessible anytime when needed.

6.3. Recommendation for future study

This study has only revealed the effectiveness of community engagement of the NT2 project from its beginning up to nearly the end of the resettlement implementation period. All livelihood restoration programmes will be handed over to government agencies by the end of 2017. For this reason, it would be useful for future studies to explore the ongoing Multi-Stakeholder Process (MSP) of the NT2 after the handover process. The findings from this study can be used as base line data, particularly for upstream communities.

Moreover, it would be fascinating for future studies to explore other affected communities in other downstream districts such as Gnommalat, Xabangfai, Mahaxay in Khammoune province, and Xaybury in Savannakhet province. The experiences of local people and authorities in relation to MSP in these areas could enrich the recommendations for improvement of MSP in the future hydropower projects in Lao PDR.

One limitation of this study is that few youth participated and provided their perceptions and experiences within the affected communities about the development process of the NT2 (Section 5.4). Therefore, for future studies, the methodology for approaching the youth should be carefully designed, because this study found that including the youth in the focus group discussion together with other adults in the communities could prevent them from joining in the session and actively contributing or challenging the adult's ideas. Establishing specific sessions for youth could include a different platform, such as a more informal chat session, which may help to make the youth feel comfortable.

6.4. Overall summary

This study has evaluated the effectiveness of community engagement in the NT2 large hydropower development project in Lao PDR. The study has revealed how four affected communities were involved in the development process from planning to operation. Furthermore, the study has explored how key players, like the Lao government and the power company, handled the challenges of engaging with both upstream and downstream affected communities in the project areas. There were good practices in terms of community engagement identified in the case of the NT2 that should be adopted into the future hydropower projects. This includes enabling the affected communities to be involved and communicate their opinions and concerns during the difference stages of project development process. Moreover, engagement with not only internal and external monitoring parties is also contribute to the success of the project.

Although the NT2 project was viewed as a successful model for future development of hydropower, not only in Lao PDR, but also in the wider region, it has weaknesses in the MSP practice. First, there is a lack of engagement with all affected groups in the communities, especially with the host villagers in the upstream communities. Second, the budget and resources for local government was insufficient. This prevented ongoing monitoring and support the affected communities. Third, the institutional memory of all stakeholder groups is not developed in a useful manner, and last there is not an effective communication approach. Therefore, clearer lines of communication need to be established both ways to increase transparency and reduce misunderstandings. The institutional memory of each stakeholder group also needs to be improved so that the project activities can be smoothly implemented from time to time. Host villagers share the community with the relocated people, therefore they need to be included in the project development and management process. To ensure effective engagement of the communities, key stakeholder must regularly review the reports provided by the monitoring agencies so that the concerns of each stakeholder group are addressed. If these weaknesses are addressed adequately for any future planning and development processes for hydropower projects in Lao PDR, it would help the Lao government fulfil its goal to develop sustainable hydropower projects. In this way, the Lao government would successfully become an electricity supplier or battery for the *Association of South East Asia Nations* (ASEAN), while key stakeholder groups, especially the affected communities are engaged meaningfully.

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Appendix A: Human ethics committee approval letter

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

HUMAN ETHICS COMMITTEE

Secretary, Rebecca Robinson
Telephone: +64 03 364 2987, Extn 45588
Email: human-ethics@canterbury.ac.nz

Ref: HEC 2016/56

8 July 2016

Phonesavath Khamvilay
Waterways Centre for Freshwater Management
UNIVERSITY OF CANTERBURY

Dear Phonesavath

The Human Ethics Committee advises that your research proposal "Evaluation of the Nam Theun 2 Hydropower Project and its Community Involvement Approach with a Theoretical Framework for Copmmunity Engagement Appropriate for Lao People's Democratic Republic Context" has been considered and approved.

Please note that this approval is subject to the incorporation of the amendments you have provided in your email of 6th July 2016.

Best wishes for your project.

Yours sincerely

pp. R. Robinson

Jane Maidment
Chair
University of Canterbury Human Ethics Committee

Appendix B: Information sheet for semi-structured interview participants

Waterways Centre for Freshwater Management
Telephone: +856 20 22239678 (Lao Number) or +64 221929127 (New Zealand Number)
Email: phonesavathk@yahoo.com or phonesavath.khamvilay@pg.canterbury.ac.nz
Date:_____

Evaluation of the Nam Theun 2 hydropower and its community involvement approach with a theoretical framework for community engagement appropriate for Lao People's Democratic Republic
Information sheet for semi-structured interview participants

My name is Phonesavath Khamvilay. I am currently a Master's student in Waterways Centre for Freshwater Management at the University of Canterbury, New Zealand. The overall goal of this research is to analyse the evolution and effectiveness of the Multi-Stakeholder Process (MSP) of the Nam Theun 2 (NT2) hydropower project. This will be investigated in relation to incorporating community participation within the international framework of the project development programme. The research will examine the process of multi-participation approaches that were applied during the project preparation, construction and operation. The findings from this study will be beneficial to many parties including, the Lao government, hydropower developers, local communities and NGOs with regards to enhancing the effectiveness of designing, implementing and evaluating the future MSP in Lao PDR.

If you choose to take part in this study, your involvement in this project will be to provide data on the following aspects:

- Your experience in involving with the development of NT2 project
- Your organisation's roles in taking part of the project through the MSP
- Your expert opinions on the project development

In order to efficiently achieve the proposed data you will be asked to have a semi-structured interview which might take 30-60 minutes.

Participation is voluntary and you have right to withdraw at any stage without penalty. If you decide to withdraw, prior the data is analysed, I will remove information relating to you. However, once analyse of raw data starts, it will become increasingly difficult to remove the influence of your data on the results.

The results of the project may be published, but you may be assured of the complete confidentiality of data gathered in this investigation: your identity will not be made public without your prior consent. To ensure anonymity and confidentiality, only my supervisors and I have authority to access the data. The data will be kept safely on my personal university desktop where only my University of Canterbury (UC) username and password that can allow the access to it. In case of using personal laptop during field data collection, password will be applied to all data folders in order to protect any accessing to the data other than the researcher. Hard copy data

will be placed in secured cabinet at my office, the Waterways Centre for Freshwater Management. The thesis will become a public document which will be available through the UC Library.

Please indicate to the researcher on the consent form if you would like to receive a copy of the summary of the final results of the project.

The project is being carried out as a requirement for a Master's Degree in Water Resource Management in Waterways Centre for Freshwater Management at the UC by Phonesavath Khamvilay under the supervision of Professor Bryan Jenkins, who can be contracted at bryan.jenkins@canterbury.ac.nz . He will be pleased to discuss any concerns you may have about participation in the project.

The project has been reviewed and approved by the University of Canterbury Human Ethics Committee, and participants should address any complaints to the Chair, Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

If you agree to participate in the study, you are asked to complete the consent form and return to the researcher.

I appreciate your taking time to participate in this project. Please do not hesitate to contract me on above details if you have any further question regarding this project.

Kind regards,

Phonesavath Khamvilay

Appendix C: Information sheet for focus group participants

Waterways Centre for Freshwater Management
Telephone: +856 20 22239678 (Lao Number) +64 221929127 (New Zealand Number)
Email: phonesavathk@yahoo.com or phonesavath.khamvilay@pg.canterbury.ac.nz
Date:_____

Evaluation of the Nam Theun 2 hydropower and its community involvement approach with a theoretical framework for community engagement appropriate for Lao People's Democratic Republic
Information sheet for focus group participants

My name is Phonesavath Khamvilay. I am currently a Master's student in Waterways Centre for Freshwater Management at the University of Canterbury, New Zealand. The overall goal of this research is to analyse the evolution and effectiveness of the Multi-Stakeholder Process (MSP) of the Nam Theun 2 (NT2) hydropower project. This will be investigated in relation to incorporating community participation within the international framework of the project development programme. The research will examine the process of multi-participation approaches that were applied during the project preparation, construction and operation. The findings from this study will be beneficial to many parties including, the Lao government, hydropower developers, local communities and NGOs with regards to enhancing the effectiveness of designing, implementing and evaluating the future MSP in Lao PDR.

If you choose to take part in this study, your involvement in this project will be to provide data on the following aspects:

- Your experience in involving with the development of NT2 project
- Your community's roles in taking part of the project through the MSP
- Your views on the project development

In order to efficiently achieve the proposed data you will be asked to have a focus group discussion which might take 1-2 hours.

Participation is voluntary and you have right to withdraw at any stage without penalty. If you decide to withdraw, prior the data is analysed, I will remove information relating to you. However, once analyse of raw data starts, it will become increasingly difficult to remove the influence of your data on the results.

The results of the project may be published, but you may be assured of the complete confidentiality of data gathered in this investigation: your identity will not be made public without your prior consent. To ensure anonymity and confidentiality, only my supervisors and I have authority to access the data. The data will be kept safely on my personal university desktop where only my University of Canterbury (UC) username and password that can allow the access to it. In case of using personal laptop during field data collection, password will be applied to all data folders in order to protect any accessing to the data other than the researcher. Hard copy data will be placed in secured cabinet at my office, the Waterways Centre for Freshwater Management. The thesis will become a public document which will be available through the UC Library.

Please indicate to the researcher on the consent form if you would like to receive a copy of the summary of the final results of the project.

The project is being carried out as a requirement for a Master's Degree in Water Resource Management in Waterways Centre for Freshwater Management at the UC by Phonesavath Khamvilay under the supervision of Professor Bryan Jenkins, who can be contracted at bryan.jenkins@canterbury.ac.nz . He will be pleased to discuss any concerns you may have about participation in the project.

The project has been reviewed and approved by the University of Canterbury Human Ethics Committee, and participants should address any complaints to the Chair, Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

If you agree to participate in the study, you are asked to complete the consent form and return to the researcher.

I appreciate your taking time to participate in this project. Please do not hesitate to contract me on above details if you have any further question regarding this project.

Kind regards,

Phonesavath Khamvilay

Appendix D: Consent form for key informant for the semi-structured interview

Waterways Centre for Freshwater Management
Telephone: +856 20 22239678 (Lao Number) or +64 221929127 (New Zealand Number)
Email: phonesavath.khamvilay@pg.canterbury.ac.nz

Evaluation of the Nam Theun 2 hydropower and its community involvement approach with a theoretical framework for community engagement appropriate for Lao People's Democratic Republic (Lao PDR)
Consent Form for key informant for the semi-structured interview

- ☐ I have been given a full explanation of this project and have had the opportunity to ask questions.
- ☐ I understand what is required of me if I agree to take part in the research.
- ☐ I understand that participation is voluntary and I may withdraw at any time without penalty. Withdrawal of participation will also include the withdrawal of any information I have provided should this remain practically achievable.
- ☐ I understand that any information or opinions I provide will be kept confidential to the researcher, supervisors, research assistants and that may published or reported results will not identify the participants. I understand that a thesis is a public document and will be available through the UC Library.
- ☐ I understand that all data collected for the study will be kept in locked and secure facilities and/or in password protected electronic form and will be destroyed after ten years.
- ☐ I understand that my identity will not be used in the report as the public document without my consent. However, the confidentiality will not be applied for my organisation's name. This is because it is a common knowledge that my organisation is one of the stakeholders who is involved in the hydropower development in Lao PDR.
- ☐ I would like to have my name in the report.
- ☐ I would not like to have my name in the report.
- ☐ I understand that I am able to receive a copy of report on the findings of the study by contacting the researcher at the conclusion of the project.
- ☐ I understand that I can contact the researcher Phonesavath Khamvilay at phonesavath.khamvilay@pg.canterbury.ac.nz or his supervisor Professor Bryan Jenkins at bryan.jenkins@canterbury.ac.nz for further information. If I have any complaints, I can contact Bounmany Soulideth at bounmany@gmail.com (in case I need translation) so that she can help in conveying my messages to the Chair of the University of Canterbury Human Ethics Committee, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).
- ☐ I would like a summary of the report
- ☐ By signing below, I agree to participate in this research project.

Name _____ Signature: _____ Date: _____

Email address: _____

Once you have signed the consent form, please return the consent form to the researcher.
Phonesavath Khamvilay

Appendix E: Consent form for focus group discussion participants

Waterways Centre for Freshwater Management
Telephone: +856 20 22239678 (Lao Number) or +64 221929127 (New Zealand Number)
Email: phonesavath.khamvilay@pg.canterbury.ac.nz

Evaluation of the Nam Theun 2 hydropower and its community involvement approach with a theoretical framework for community engagement appropriate for Lao People's Democratic Republic (Lao PDR)

Consent Form for key informant for the focus group participant

☐ I have been given a full explanation of this project and have had the opportunity to ask questions.

☐ I understand what is required of me if I agree to take part in the research.

☐ I understand that participation is voluntary and I may withdraw at any time without penalty. Withdrawal of participation will also include the withdrawal of any information I have provided should this remain practically achievable.

☐ I understand that any information or opinions I provide will be kept confidential to the researcher, supervisors, research assistants and that may published or reported results will not identify the participants. I understand that a thesis is a public document and will be available through the UC Library.

☐ I understand that all data collected for the study will be kept in locked and secure facilities and/or in password protected electronic form and will be destroyed after ten years.

☐ I understand that my identity will not be used in the report as the public document without my consent. However, the confidentiality will not be applied for my village's name. This is because it is a common knowledge that my village is one of the stakeholders who is involved in the hydropower development in Lao PDR.

☐ I would like to have my name in the report.

☐ I would not like to have my name in the report.

☐ I understand that I am able to receive a copy of report on the findings of the study by contacting the researcher at the conclusion of the project.

☐ I understand that I can contact the researcher Phonesavath Khamvilay at phonesavath.khamvilay@pg.canterbury.ac.nz or his supervisor Professor Bryan Jenkins at bryan.jenkins@canterbury.ac.nz for further information. If I have any complaints, I can contact Bounmany Soulideth at bounmany@gmail.com (in case I need translation) so that she can help in conveying my messages to the Chair of the University of Canterbury Human Ethics Committee, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

☐ I would like a summary of the report

☐ By signing below, I agree to participate in this research project.

Name _____ Signature: _____ Date: _____

Email address: _____

Once you have signed the consent form, please return the consent form to the researcher.
Phonesavath Khamvilay

Appendix F: Semi-structured interview questions

1. Did you have a chance to participate in any of the NT2 hydropower development processes such as consultations/meetings/planning? And what was your role in the NT2 project development process?
2. Can you describe your experience and involvement with the NT2 hydropower project development, including consultations/meetings/planning?
3. Can you describe how representative the participation was in the consultations/meetings/planning for the NT2 hydropower project?
4. Were there any facilitators in each event? If yes who were they? And what did you think about the way facilitators assisted the event?
5. How were the project materials provided for participants beforehand? And did you have enough time to review them?
6. Did you participate in the decision-making process for the project? If yes can you explain how involved you were?
7. What were the issues that your agency was responsible for?
8. Were these issues incorporated in the project?
9. What has been the effect of the project in relation to these issues?
10. What was the mechanism used in supporting the decision-making process? And do you feel your voice was heard during the consultations/meetings/planning for the NT2 project?
11. What do you think were the key challenges in working with different stakeholders during project preparation and implementation phases?
12. What were the strategies and methods of your organisation that you used in order to handle those challenges?
13. What do you think worked well in the MSP adopted for NT2?
14. What do you think could be beneficial in improving the MSP for the future hydropower development in Lao PDR?

Appendix G: Focus group discussion topics

1) Can you tell me about your experience in involvement with the NT2 hydropower project development, including community consultations/meetings/planning?
2) Are they representative for diverse groups involved in such events?
3) What community' issues were discussed in the past community dialogues or meetings? And what were attracted less interest?
4) What do you think about your understanding for the NT2 hydropower project through participation in the community consultations/meetings/planning?
5) Do you think information provided during community consultations/meetings/planning for the project is adequate for your community?
6) In particular, how would you describe the process of working with government officers, the power company staff and NGOs during design and implementation phases?
7) Did you have a method for working through the objectives presented by different stakeholders? And what was it? And If not, why not?
8) Are there aspects of the MSP you would like changed for future hydropower development in Lao PDR? What are they?